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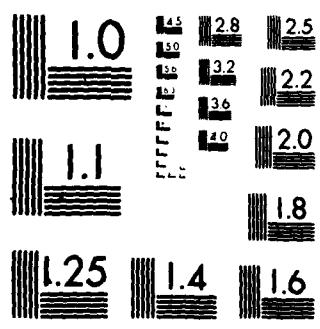
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SCOPING SUMMARY

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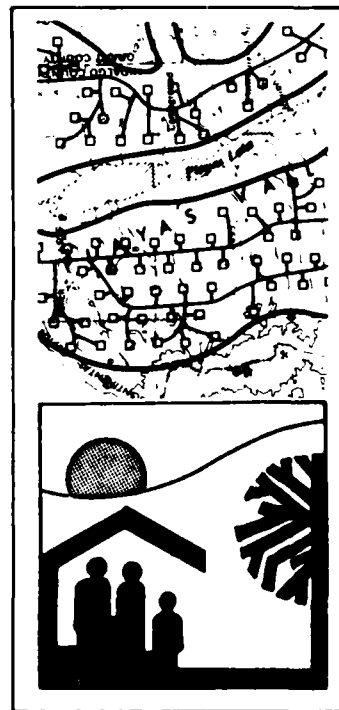
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MX SYSTEMS

ENVIRONMENTAL PROGRAMS

SCOPING SUMMARY



EIR-225

SUMMARY OF SCOPING FOR THE MX:
DEPLOYMENT AREA SELECTION/LAND WITHDRAWAL
ENVIRONMENTAL IMPACT STATEMENT

Prepared for

UNITED STATES AIR FORCE
BALLISTIC MISSILE OFFICE
NORTON AIR FORCE BASE
CALIFORNIA

By

HDR Sciences
Santa Barbara, California
14 April 1980

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CONTENTS

1. Executive Summary
2. Scoping Meetings
3. Environmental Concerns

Appendices

- A. Issues Raised at MX EIS Scoping Meetings as Recorded by the Bureau of Land Management
- B. Analysis of Issues and Data Needs for MX EIS, Prepared by the Bureau of Land Management
- C. Scoping Response - The Office of Economic Adjustment
- D. Scoping Response - U.S. Environmental Protection Agency
- E. Scoping Response - Duckwater Shoshone Tribe
- F. Summary of Congressional Testimony by Nevada and Utah State Governors
- G. Summary of Issues, State of Nevada
- H. Summary of Issues, State of Utah
- I. Agencies, Organizations, and Individuals Submitting Written Statements/Comments



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1. EXECUTIVE SUMMARY

Purpose of Scoping

Scoping is a new requirement from the President's Council on Environmental Quality. Its express purpose is threefold:

- o Agencies and individuals who have a direct interest in a project, including affected local residents and advisory groups must be given the opportunity to input points-of-view/questions for the EIS.
- o Project management is given the opportunity to define and explain the project as well as answer citizen/agency questions.
- o By elimination, analysis areas not of concern are identified, and focus shifts to more intense study of identified key issues.

Scoping Activities

To effect a timely and orderly flow of scoping information, the Air Force published a scoping pamphlet: "The MX System and the Environment," December 1979. This pamphlet contained a general description of MX and a summary of key issues, extracted from public comments on previous MX-related environmental impact statements, "MX: Buried Trench Construction and Test Project," and "MX: Milestone II." To ensure the dissemination of information in potentially affected areas, a number of agency and public meetings were held, beginning in December 1979. Formal meeting locations are listed below:

- o Federal Agency Scoping Meetings 10-14 December 1979
- o State Agency Scoping Meetings
 - Carson City, Nevada 10 January 1980
 - Salt Lake City, Utah 11 January 1980
- o Public Scoping Meetings
 - Ely, Nevada 14 January 1980
 - Delta, Utah 15 January 1980
 - Nephi, Utah 16 January 1980
 - Panaca, Nevada 17 January 1980
 - Milford, Utah 21 January 1980
 - Beaver, Utah 22 January 1980
 - Alamo, Nevada 23 January 1980

- Cedar City, Utah 24 January 1980
- Las Vegas, Nevada 28 January 1980
- Reno, Nevada 29 January 1980
- Tonopah, Nevada 30 January 1980
- Salt Lake City, Utah 31 January 1981

Initial scoping meetings were held with the Department of Interior, the Environmental Protection Agency (EPA), and numerous other agencies in Washington, D.C., for each group's input on important environmental issues related to land selection/withdrawal for MX. The Department of Interior, in particular, has an important role, since its Bureau of Land Management (BLM) is a full cooperating partner with the Air Force in the preparation of the EIS. Meetings with Federal Regional Councils in San Francisco (Region IX) and Denver (Region VIII) were also conducted in December. These federal agencies represent the principal mechanism through which federal planning and impact funding would be made available to potentially affected communities.

In general, citizen participation and interest was excellent. Most public meetings were 3 to 4 hours long, although the Las Vegas scoping meeting ran from 7 PM until 1 AM. Additional meetings between Air Force representatives and local agencies and organizations were held in many Nevada and Utah cities and towns concurrently.

Public sentiment at meetings ranged from inquisitive, where area residents asked what the project included and likely Air Force plans to avoid or mitigate adverse impacts, to anti-war, anti-nuclear, anti-MX comments, which dominated citizen response at Ely, Las Vegas, Reno, and Salt Lake City.

Roughly 500 letters have been received to date, and have included issue identification, environmental data, and requests for information from the Air Force. Most have been received from private citizens (Appendix I), but state and local agencies; national, state, and local organizations; educational institutions; and private business have also responded to scoping.

Results

Public concerns are identified in Sections 2 and 3. As a result of agency, organization, and public input during the scoping process, ten key environmental issues have been identified for the MX environmental program, and will provide effective direction for environmental analyses and EIS preparation (Section 3).

The scoping process undertaken by the Air Force produced other benefits as well:

- o Important data sets and sources were discovered, either at scoping meetings themselves, or in peripheral meetings/discussions.

- o A flow of information has been initiated between Air Force and local officials and residents, including project detail, environmental data, study methodologies, and preliminary results. Critical assessment, which will certainly improve study quality, will also be undertaken as part of this exchange.
- o Citizens, organizations, and public agencies received an opportunity to hear a summary discussion on the Deployment Area Selection/Land Withdrawal EIS, and to question Air Force and BLM officials. The majority of the concerns expressed will be treated in the EIS.

Report Organization

This technical report discusses the public and agency concerns and identified issues associated with the Deployment Area Selection/Land Withdrawal EIS.

- o Section 2 summarizes citizen/agency input received at public meetings.
- o Section 3 identifies environmental concerns generated both from scoping meetings and prepared statements received by the Air Force.
- o The nine appendices are:
 - A checklist prepared by BLM of summary issues raised during the scoping process
 - A detailed outline of issues and data needs for the EIS, compiled by the BLM
 - A summary statement of the Office of Economic Adjustment's role in MX program planning
 - A summary statement from the U.S. Environmental Protection Agency
 - A statement from the Duckwater Shoshone Tribe, Duckwater Reservation, Nevada
 - A summary of congressional testimony by the governors of Nevada and Utah
 - A summary of issues prepared by the State of Nevada
 - A summary of issues prepared by the State of Utah
 - A list of respondents to date

2. SCOPING MEETINGS

The Air Force conducted scoping meetings in seven Nevada cities and six Utah cities. Those conducted in Carson City, Nevada, 10 January 1980, and Salt Lake City, Utah, 11 January 1980, were attended by representatives of state agencies; the remainder were public meetings. Meeting locations, estimated attendance, and key issues raised are summarized below.

Carson City, Nevada

Date: 10 January 1980

Estimated Attendance: 350

Many state agencies/departments and legislators were represented. Brig. Gen. McCartney, Vice-Commander, Ballistic Missile Office, Norton Air Force Base, California, introduced the meeting.

Forty-three persons raised questions/comments with emphasis on:

- o land-use constraints
- o Air Force intentions regarding state water laws
- o local growth impacts
- o completeness and accuracy of Air Force studies
- o determination of Nevada/Utah as deployment sites
- o desire for state input/review in all Air Force analyses

Salt Lake City, Utah

Date: 11 January 1980

Estimated Attendance: 200

Many state agencies/departments and legislators were represented. Governor Scott Matheson introduced the meeting and emphasized: the requirement for adequate planning and impact funding; the dissemination of MX study data; and the selection process undertaken for deployment in Nevada/Utah.

Forty-eight persons raised questions/comments with emphasis on:

- o land-use restrictions
- o local growth impacts
- o Air Force intentions regarding state laws
- o completeness and accuracy of Air Force studies
- o desire for state input/review in all Air Force analyses

Ely, Nevada

Date: 14 January 1980

Estimated Attendance: 800

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Antonia Chayes, Undersecretary of the U.S. Air Force introduced the meeting.

Thirty-nine persons raised questions/comments with emphasis on:

- o land-use restrictions
- o local growth impacts, including effects on quality-of-life
- o determination of Nevada/Utah as the deployment site
- o damage to desert ecosystems
- o national defense and MX as a deterrent
- o MX effects on the White Pine Power Project

Delta, Utah

Date: 15 January 1980

Estimated Attendance: 375 persons

Thirty persons raised questions/comments with emphasis on:

- o grazing impacts on area ranchers
- o Air Force intentions regarding state water laws
- o local growth impacts
- o determination of Nevada/Utah as the deployment site
- o support for operating base received from the town of Lyndyl
- o MX effects on Intermountain Power Project

Nephi, Utah

Date: 16 January 1980

Estimated Attendance: 125

Twenty-seven persons raised questions/comments with emphasis on:

- o the method by which the Air Force would obtain water
- o potential environmental effects, including loss of quality-of-life
- o determination of Nevada/Utah as the deployment site
- o public health and safety, including nuclear target concerns

Panaca, Nevada

Date: 17 January 1980

Estimated Attendance: 250 persons

Eighteen persons raised questions/comments with emphasis on:

- o land-use restraints
- o local growth impacts
- o determination of Nevada/Utah as the deployment site
- o effects on area wildlife and game resources

Milford, Utah

Date: 21 January 1980

Estimated Attendance: 200

Thirty-seven persons raised questions/comments with emphasis on:

- o land-use restraints
- o water resources, including Air Force intentions regarding state water laws
- o local growth impacts, including loss of quality-of-life
- o land ownership of areas required for deployment
- o public health and safety, including nuclear target concerns

Beaver, Utah

Date: 22 January 1980

Estimated Attendance: 125

Thirty-four persons raised questions/comments with emphasis on:

- o land-use restraints
- o local growth impacts including the number and distribution of immigrants
- o alternative deployment locations, modes, and defense systems
- o effects on terrestrial and aquatic ecosystems

Alamo, Nevada

Date: 23 January 1980

Estimated Attendance: 100

Twenty-three persons raised questions/comments with emphasis on:

- o land-use restraints
- o local growth impacts on water resources, including Air Force intentions with respect to state water laws
- o public health and safety, including nuclear target concerns
- o military and civilian co-use of required public service facilities

Cedar City, Utah

Date: 24 January 1980

Estimated Attendance: 200

Forty-three persons raised questions/comments with emphasis on:

- o completeness and accuracy of Air Force water studies
- o Air Force intentions regarding state water laws
- o local growth impacts, including loss of quality-of-life
- o public health and safety, including nuclear target concerns

- o interactive and cumulative impacts of MX with other projects

Las Vegas, Nevada

Date: 28 January 1980

Estimated Attendance: 340

Thirty-six persons raised questions/comments with emphasis on:

- o the viability of nuclear deterrence in general and MX in particular for world peace
- o land-use restraints and conflicts
- o determination of Nevada/Utah as deployment sites
- o accuracy and completeness of Air Force studies
- o local growth impacts, including loss of quality-of-life

Reno, Nevada

Date: 29 January 1980

Estimated Attendance: 700

Forty-one persons raised questions/comments with emphasis on:

- o viability of nuclear deterrence in general, and MX in particular as solutions for world peace
- o land-use conflicts
- o determination of Nevada/Utah as the deployment area
- o credibility of Air Force analyses and statements
- o water resource conflicts
- o local growth impacts, particularly loss of quality-of-life
- o preservation of archaeological and cultural resources

Tonopah, Nevada

Date: 30 January 1980

Estimated Attendance: 450

Forty persons raised questions/comments with emphasis on:

- o land-use conflicts and restraints, and Air Force strategies to minimize such effects
- o Air Force compliance with state and federal laws
- o local growth impacts
- o alternative deployment sites and basing modes
- o water resource conflicts

Salt Lake City, Utah

Date: 31 January 1980

Estimated Attendance: 1,000

Forty-one persons raised comments with emphasis on:

- o opposition to nuclear deterrence in general, and MX in particular
- o determination of Nevada/Utah as the deployment area
- o credibility of Air Force analyses and statements
- o socioeconomic and environmental effects on rural communities and fragile desert ecosystems
- o land-use conflicts
- o public health and safety, particularly nuclear target concerns

3. ENVIRONMENTAL ISSUES

The U.S. Air Force has identified ten key issues for environmental analyses to be conducted for the MX Deployment Area Selection/Land Withdrawal EIS:

- o Rapid, large-scale growth
- o Land use/land rights
- o Water resources
- o Public health and safety
- o Archaeological and historical resources
- o Energy and nonrenewable resources
- o Terrestrial and aquatic biology
- o Air quality
- o Native Americans
- o Construction resources

This list of issues is the result of agency, organization, and citizen input through scoping meetings and written questions and comments submitted during the scoping process to date. Table 1 details subdivisions of these key issues. Scoping issues outside the scope of the land selection/land withdrawal environmental program and EIS also are identified. In general, such issues focus on national defense and methods by which the United States maintains it.

The category of "Citizen/Air Force Communication" includes information necessary for state and local agencies and area residents to evaluate, interact with, and assist Air Force analyses. As a result of scoping, additional meetings have been scheduled and a flow of information between concerned parties has been established. A similar situation occurs with the category of "Citizen Influence on MX Decision-Making." While not explicitly a part of the environmental study, public reaction as measured at scoping meetings is an input for the decision process in selecting operating base locations.

For purposes of environmental analysis and discussion in the EIS, most of the scoping issues in Table 1 will, in fact, be treated as subsets of the major key issue categories. For example, MX interaction with other projects, size of military and civilian employment, sewage/solid waste, and local and small business opportunities will be subsumed within the Rapid Large-Scale Growth issue. Noise will be treated under Public Health and Safety. Other issues will be detailed

Table 1. Major key issue categories and issues raised at scoping meetings.

KEY ISSUE CATEGORY	DETAILED SCOPING ISSUE
Rapid, Large-Scale Growth	MX interaction with other projects; size of military and civilian employment; sewage/solid waste; local and small business opportunities; citizen/Air Force communications; education
Land Rights/Land Use	Sagebrush Rebellion; alternative deployment sites; recreation and wilderness areas; permitting and compliance with state/local laws and regulations; citizen/Air Force communications; air-space restrictions
Water Resources	Surface hydrology; post-EIS inventories and monitoring; permitting and compliance with state/local laws and regulations
Public Health & Safety	Noise; security configuration
Archaeological/Historical Resources	Permitting and compliance with state/local laws and regulations
Energy and Nonrenewable Resources	Electrical energy and petroleum products
Terrestrial and Aquatic Biology	Protected species; post-EIS inventories and monitoring; hunting and fishing restrictions
Air Quality	Post-EIS inventories and monitoring; permitting and compliance with state/local laws and regulations
Native Americans	Land, water, and cultural resource conflicts
Construction Resources	Cement, sand and gravel, and steel requirements
Engineering	Alternative deployment modes; civilian co-use of military facilities
Issues Outside Scope of EIS	Civil defense facilities; credibility of Air Force planning, studies, statements; extent of citizen influence on MX decision-making; MX vs. alternatives for national defense; interaction of MX and SALT II

as part of the project description, then analyzed as they interact with and affect the ten key environmental concerns identified in Table 1.

The issues of rapid large-scale growth, land use/land rights, and water resources are paramount concerns in the public meetings. The following subsections detail each in turn, then more briefly address the remaining environmental issue set. Some of these latter issues are required by special legislation, even though they were only briefly mentioned in the public meetings.

Rapid Large-Scale Growth

Construction and operation of the MX system will create long-term employment and is likely to generate beneficial, stable growth in communities associated with the main operating base(s) and numerous support areas, and at least short-term employment in communities throughout the deployment areas selected. Stimulated employment will strengthen the economy and encourage immigration. However, this growth could potentially outstrip the capabilities of local law enforcement, educational facilities, and supplies of goods and services. Economic concerns are anticipated in the areas of population immigration, both during construction and operation, and the consequent rapid large-scale growth, which could stress community infrastructure and increase local governmental expenses.

o Labor and other material requirements

- The direct annual labor requirements, coupled with the employment generated in the area by the economic activity induced by the project, will exceed the ability of the area to supply labor from the pool of employed and underemployed labor. While job opportunities for local persons will improve, the overall effect may be an increase in the cost of labor, at least in the short run.
- Price inflation of other resource inputs is likely with the increased competition from the project.
- Local business will experience increased commercial opportunities, but they may also face increased competition as economies expand and attract larger-sized "chain type" operations to the area. Local firms also may be too small or inexperienced to effectively compete for MX contracts. Difficulties could also result if material and labor costs are forced upward in response to direct and induced economic growth.
- In Ely, Nevada, and Delta, Utah, particularly, there is concern over interaction and likely cumulative impacts from concurrent construction of MX, the White Pine Power Project, and the Intermountain Power Project. Cumulative impacts will intensify growth concerns.

o Population immigration

- The large demands for direct and indirect labor will necessitate high levels of immigration, which could result in secondary economic and social consequences.
 - Increased competition for finished goods could induce shortages and/or price inflation. The elderly and those on fixed incomes will experience the most severe impacts.
 - Deterioration of resident quality-of-life and increases in crime, alcoholism, and mental health problems have been cited as potential adverse growth impacts.
- o Housing impacts
 - The influx of persons into the project areas will place heavy strain on local and regional housing, resulting in increased housing prices and rents. A limited number of local people will benefit, while others could be priced out of the local area.
 - o Impacts on local government
 - Demands on a wide range of public services (e.g., education, health, water supply, wastewater treatment, and recreation facilities) could increase public expenditures beyond the capacity of local governments to meet them. However, changes in the community tax base and federal impact assistance could reduce upward pressure on local tax bills.
 - Specific concern has been expressed regarding Air Force preplanning and financial impact assistance. This includes federal strategies currently in process; methods by which local entities/residents apply for assistance; timing and expected magnitude of forthcoming aid; and legislation authorizing payment-in-lieu of taxes for sustaining community infrastructure, particularly for support of operations base employees and their families.

Land Use/Land Rights

Concern with effects on people who currently own or use lands potentially required for the MX system has been repeatedly expressed. Current uses include residential, agricultural, mining, and recreational. Alternative future uses and secondary effects on nearby communities are also relevant.

- o Agricultural uses, particularly grazing on federal multiple-use land administered by the BLM, are common to those areas identified as geotechnically suitable. Land disturbed during construction and the 25 sq nautical mi withdrawn and rights-of-way needed for operations will not support grazing, and some decline in this use will occur. Although the road networks of the system will provide improved public access to remote areas, there exist potential impacts on the co-use of lands for agricultural, mining, and recreational purposes, particularly areas utilized for offroad vehicles (ORV) recreation and

hunting activities.

- o Alternative future land uses are also being investigated since these represent opportunity costs. Important mineral deposits, including coal, uranium, and precious metals, are known or suspected in the potential deployment areas. Additional dedicated recreational areas, including national parks, wilderness areas, and ski resorts are being considered in some of the proposed deployment areas.

Land ownership is another aspect of the land rights/land use issue.

- o The large proportion of land in Nevada and Utah under federal ownership is increasingly a source of conflict. Currently, the "Sagebrush Rebellion," begun in Nevada, is spreading to neighboring states; citizen desire for state control of present federal lands includes much of the proposed MX deployment area.
- o Although current MX proposals envision use of existing BLM-managed federal land to the maximum extent possible, a long-term commitment of land to other than state and private control has been identified as a source of opposition. In Utah, some requirement for state land appears inevitable and in each state, rights-of-way through private land may be necessary. These requirements will be minimized to the maximum extent possible.
- o Concurrently, citizen input has requested the federal government to release other federal lands, both to substitute for losses and to help local communities, some of which are currently "landlocked" by federal lands, accommodate MX-induced growth through expansion.

Concern has arisen with respect to Air Force plans to minimize direct and induced losses to alternative land users. Possible mitigations identified by ranchers and area residents include range improvements, project siting flexibility, land substitution for areas lost, and monetary compensation.

Additional concerns are:

- o Possibility of restrictions on civilian air space, during both construction and operations.
- o Ownership and responsibility for policing and maintaining roads built by the Air Force. This issue includes access restraints imposed on the public in the deployment area both during construction and operations.
- o Direct and induced growth of other transport modes, including railroads and airports. The issue centers on growth requirements, as well as responsibility for construction and operational costs.

Water Resources

Throughout the Nevada/Utah area, water resources are of great concern. Public sentiment and available information indicate that few unexploited water sources are to be found, groundwater and surface water rights are mostly committed, water basin overdrafting is common, and the potential for recharge and replacement is limited.

- o Concern was expressed that installation of MX may intensify existing competition among current users including mining, agriculture, recreation, urban areas, energy suppliers, and Native Americans.
- o Much comment was received regarding Air Force intentions to follow state as opposed to federal water laws, as well as coordination of its water resources program in the Great Basin with state officials.
- o Concern was raised over Air Force strategies to minimize water resource impacts on competing users. Project siting flexibility, importation of water from elsewhere, and purchase/lease of local residents' water rights were identified by area residents as possible mitigations.

Concern regarding water resource impacts results from the water requirements for construction and dust control. In addition, project-related effects on earth surface characteristics could increase runoff, affect the course of existing channels, change drainage basin balances, and diminish the quality of surface and groundwater supplies.

- o Resident sentiment indicates that increased water use in a water-short area will cause conflicts and objections beyond those that now exist.
- o Well-defined long-term monitoring programs are considered important to accurately assess inter-groundwater basin flows and impacts from Air Force water use.

In areas subject to flash flooding, the MX system with its road networks and openable structures may require adequate protection measures such as diversionary ditches, holding ponds, and berms along openings.

Public Health and Safety

This issue has been a particularly volatile one, in large part because of residents' fear of their states becoming nuclear targets once MX is sited. Civil defense concerns and the issue of nuclear fallout were repeatedly raised. However important such issues are, they are not within the environmental scope of the land selection/land withdrawal EIS.

Other public health and safety issues were raised principally because deployment of the MX missile system will involve the transportation, storage, and handling of both rocket propellants and radioactive materials. Further, the issue of accidental firing or detonation was raised.

Other resident concerns such as increases in ambient noise levels, are not directly related to the missile system but stem from the expected usage of large construction vehicles, from improvements in the road network to permit higher speed travel, and the increase in traffic due to project requirements and induced population growth.

Archaeological and Historical Resources

The land-use requirements of MX implementation could result in the loss of cultural resources from both direct and indirect project impacts. Not only will large areas of land surface be modified, thereby affecting archaeological sites, but also secondary effects such as increased human access, vandalism, erosion, and construction of support facilities will contribute to the destruction of cultural resources. This situation poses an important problem for MX, since recent federal legislation mandates:

- o The determination of potential project effects on cultural resources
- o The preservation of sites in situ or the preservation of historical and archaeological data that might otherwise be irretrievably lost as a result of project implementation

In addition, many citizens question Air Force intentions regarding state and local government legislation pertaining to the management of cultural resources in their respective jurisdictions. Principal concerns focus on the need to acquire archaeological data from both primary and secondary sources. Air Force strategies to preserve identified sources were questioned. Project siting flexibility and protection of sites have been most commonly identified as potential solutions.

Energy Resources

Construction and operation of the MX system will create demand for nonrenewable resources, including electrical energy and petroleum products. Although the development of geothermal, solar, or wind energy sources to serve the system is under review, the issue of energy demand/supply remains very significant to local agencies and residents.

- o There has been real interest in alternative energy sources and of public access to technology and any power surplus.
- o Cancellations and postponements of electric generating plant projects in the past several years has led to resident concern over the adequate supply of electricity during the 1980s. In addition, continued upward pricing of petroleum by the Organization of Petroleum Exporting Countries (OPEC) and occasional supply withdrawals have led to rapid escalation of gasoline prices and occasional nonavailability of fuel. Residents fear competition for their scarce energy supplies.
- o Concern centers on where and how the Air Force will obtain needed energy supplies. Consumers fear loss of energy availability to them, and more rapid price increases than

otherwise. They have questioned whether the Air Force will, in fact, find it necessary to construct additional generating facilities, and if so, where, what type, and whether civilian co-use of facilities would be considered.

- o Related concerns center on impacts on proposed generating facilities, principally the White Pine Power Project in Nevada and the Intermountain Power Project in Utah.

Terrestrial and Aquatic Biology

Public concern has centered on the construction and operation of the MX system as it adversely impacts vegetation and the habitat of the deployment area. The basic fear is that these impacts are potentially large and could have far-reaching effects.

Vegetation/Habitat

- o Construction of MX facilities will impact vegetation/habitat primarily through direct removal of plants. The requirement of large amounts of sand and gravel during construction also would disrupt large land areas and associated vegetation.
- o Some areas of natural vegetation will be lost at least for the operating life of the project as a result of the induced population growth.
- o Additional ecosystem effects may result from disruption of surface water flow, which is vitally important in determining the distribution of plants and animals in arid areas. Groundwater withdrawal for construction could cause impacts to groundwater-dependent species.
- o The growth of opportunistic, invasive, or weedy plant species, e.g., halogeton, during and following construction, has also been identified by area ranchers as a particular problem.

Aquatic Organisms

- o Although the issue of aquatic organisms was raised less frequently, habitat disturbances may also adversely impact aquatic and riparian organisms. Impacts that would reduce the aesthetic or recreational value of water or water-associated (riparian) habitats are of concern, especially since surface waters are limited in supply.
- o Current information indicates that groundwater supplies are limited and recharge rates low. Public concern has been expressed over any water drawdowns which could induce secondary impacts on surface water, hence, aquatic habitats.

Terrestrial Animals

- o Organizations and residents have stated that MX-related alterations in the existing habitat will adversely affect terrestrial animals in the area. Concern is particularly high

for animals having significant recreational, aesthetic, or economic importance, such as pronghorn antelope, deer, bighorn sheep, wild horses, wild burros, gamebirds, songbirds, raptors, and furbearers.

- o Direct project effects include habitat loss, restrictions on movement, and disturbances such as noise and human presence.
- o Indirect project effects, related primarily to project-induced population growth, will result from community development, increased human activity (primarily recreation), and introduction of exotic species.

Protected Species

- o Perhaps the most frequently raised concern centered upon habitat disturbance and increased human activity resulting from the MX project and possible adverse impacts upon terrestrial animals protected by state and federal laws. Loss of habitat, food, or water quality, and general disturbance (noise, presence of humans, etc.) were raised as central issues. Induced population growth resulting from MX deployment will affect protected species through increased human activity, primarily recreation, and the introduction of exotic species.
- o Deployment of MX may impact plant species that are protected by state or federal law. One of the major effects of MX construction on protected plant species would be habitat disturbance or loss. In addition to direct removal of plants by construction equipment, potential for serious impacts lies in the alteration of drainage patterns and increased erosion.
- o While few plant species have been formally proposed for federal listing, many have been identified for consideration as threatened or endangered, and many states are in the process of establishing procedures for protection of rare plants. In the absence of adequate information on the locations and distribution of rare and unique species, damage could be done unknowingly to the habitats of these species.
- o The increased population expected to result from manpower requirements holds the potential for negative impacts to protected plant species, particularly as this growth most likely will occur in previously underpopulated areas. Recreation activities can directly destroy plants and their habitats, as well as alter drainage patterns, increase erosion potential, and increase the collection of desert plants.
- o Protected aquatic species, although less frequently found, were also identified as an issue.
- o For anticipated biological impacts, repeated suggestions were made for in-depth field study as well as long-term monitoring. In many instances, concerned individuals argued that essentially only project siting away from such biologically sensitive areas would prevent irreparable harm.

Air Quality

Comments emphasized the generation of high levels of fugitive dust because of the amount of disturbed area and operational activities. Additionally, air quality deterioration would result from the personnel requirements for construction, operations, and maintenance, generating significant amounts of combustion pollutants by automobiles, heavy construction equipment, operations equipment, and other vehicles.

- o Development in proximity to some designated areas has a potential for negative impacts on the air quality of pristine areas. In particular, construction and use of the extensive road network and relatively long road segments are prime sources of the generation of fugitive dust that may affect areas some distance away.
- o The issue of Air Force compliance with state air quality laws was raised. There also was concern over the scarcity of relevant baseline air quality data in the Nevada/Utah deployment area, as well as citizen awareness of the need for long-term air quality monitoring programs.

Native Americans

The proposed siting of the MX system in Nevada/Utah has created negative responses from Native Americans. Specifically, sensitive Native American issues include potential for impacts to sacred places, restriction of access to sacred places, destruction of ancestral sites, and conflicts with the senior water rights of reservations.

- o Direct land use/land rights impacts are feared from project siting and required rights-of-way. Water conflicts are expected by Indians as a result of water requirement for MX.
- o Indirect impacts may result from economic and demographic growth, and from access restrictions required for security.
- o These Native American concerns include degradation of quality-of-life and fear of likely destruction of fragile desert ecosystems.
- o Public suggestions to minimize negative effects include avoidance of places of cultural significance by establishing both the location of such places and the attitudes of Native Americans toward them. Avoidance of water rights conflicts is most likely through siting the project in an area where water availability is relatively greater and there are few Indian reservations.

Construction Resources

Project construction will require large quantities of cement, sand and gravel, and steel. There will also be demand for asphalt, lumber and other building materials.

- o Public concern has centered most on cement, sand and gravel resources. Basic concerns include increased competition for resources, widespread local shortages, and dramatic upward pressure on prices.
- o Residents are concerned that alternative use demands will be preempted in the short run, and then as prices rise, that higher construction costs will ultimately force up prices of finished goods.
- o Questions also center on where the Air Force intends to obtain resource supplies, particularly sand and gravel. Use of local borrow pits may create environmental degradation and preempt local consumption.

APPENDICES

APPENDIX A

ISSUES RAISED AT MX EIS SCOPING MEETINGS

AS RECORDED BY THE

BUREAU OF LAND MANAGEMENT

Public Issue:

[illegible]

Public Issue:

	1/8 Reno "NO MX"	1/9 Las Vegas - Govt.	1/11 SLC - Govt.	1/14 Ely - C. of C.	1/14 Ely - Public	1/15 Delta	1/16 Nephi	1/17 Panaca	1/21 Milford	1/22 Beaver	1/23 Alamo	1/24 Cedar City	1/28 Las Vegas	1/29 Reno	1/30 Tonopah	1/31 SLC
PUBLIC ISSUE:																
LAND USES																
RANGE USE OR AGRICULTURE																
Reduced or lost grazing rights.	x	x		x	x	x	x	x	x	x	x	x	x	x	x	
Reduced grazing during construction.	x	x		x				x		x			x			
Compensation for range loss (Improvements).				x			x	x			x					
Need for range improvement research.									x							
Increased livestock harrassment from roads.												x				
Dissected ranches reduces carrying capacity.						x										
Increased rustling.							x									
Keep open cattle driveways.												x				
MINING																
Unhindered continued mineral development.					x		x	x		x		x		x	x	x
Interference with existing mining claims		x			x											x
Continue use pres. equipment, explosives for mining.						x	x									
CHANGING ENVIRONMENT																
Consideration of proposed, existing wilderness areas.										x		x				
Impacted pristine desert landscape.	x															
Rapid change from rural to urban setting.							x						x		x	
Change in local weather conditions.										x						
Impact on visual resources.													x			
Impact on Indian spiritual lands.													x			

Recorded by BLM - January 1980

Public Issue:

MX EIS SCOPING MEETINGS		1/8	Reno "NO MX"	1/9	Las Vegas - Govt.	1/11	SLC - Govt.	1/14	Ely - C. of C.	1/14	Ely - Public	1/15	Delta	1/16	Nephi	1/17	Panaca	1/21	Milford	1/22	Beaver	1/23	Alamo	1/24	Cedar City	1/28	Las Vegas	1/29	Reno	1/30	Tonopah	1/31	SLC
Issues Raised by Public as Recorded by BLM - January 1980																																	
Public Issue:																																	
LAND USE (cont.)																																	
OTHER USES																																	
Limitations on air space use.											x					x	x		x			x		x									
Actual location of base, bases.																x	x																
Types of land uses on bases.																		x															
Increased hunting, fishing, recreation pressures.			x					x							x										x					x			
Length of time missile on loop road.																		x															
Will "point security" be adequate.																		x															
Impacts on ski areas.			x															x			x												
Local airport uses and impacts.																																	
Include local transportation plans, planning.									x	x																							
Impacts on all existing land uses.			x																														
Impacts on all existing resources.			x					x	x																								
Travel restrictions around project area.																																	
Impact on Desert Land Entry program.																																	
Deploy near exist, transportation systems.			x																														
Ownership, maintenance response of new roads.																																	
Impact on new National Park proposal.										x																							
Increased ORV use in desert, other areas.																																	
LAND ACQUISITION AND RIGHTS																																	
BLM lands made available for community expansion.									x	x							x																
Other than Federal land acquisition process.										x							x																
Total land area restricted, affected.																				x													
Administration of 3,000 ft. buffer.			x																														
Administration of lands during construction.			x																														
Need private land acquisition offset by Federal, State transfer.										x																							
Project impact on Sagebrush Rebellion.															x																		
Withdrawal process must be credible.																																	

Issues Raised by Public as
Recorded by BLM - January 1980

SOCIOECONOMIC

Potential geothermal energy use.

[illegible]

**Issues Raised by Public as
Recorded by BLM - January 1980**

ENERGY AND UTILITIES (cont.)

Future energy needs, resource impacts.
Prioritization of MX vs. energy
development.

Availability of fuels during construction, 0 and

1/8	Reno "NO MX"		
1/9	Las Vegas - Govt.		
1/11	SLC - Govt.		
1/14	Ely - C. of C.	x	
1/14	Ely - Public	x	
1/15	Delta		
1/16	Nephi		
1/17	Panaca	x	
1/21	Milford	x x	
1/22	Beaver		
1/23	Alamo	.	x
1/24	Cedar City	x	x
1/28	Las Vegas	x	
1/29	Reno		
1/30	Tonopah	x	x x
1/31	SLC		x

Recorded by BLM - January 1980

OTHER ISSUES

Region will become "target, sponge area"
Environmental monitoring during
construction.

Increased noise pollution.

What are project alternatives, alt. locations.

Impacts if project is stopped mid construction.

Protection of local gov't from federal
corruption.

If not deployed as proposed, what time delay.

Reclamation techniques after deactivation

Need to spread out all project impacts.

Special project legislation needs.

Need socioeconomic, resource base line studies.

Study local, regional, national impacts.

Address cumulative effects of project.

Impact of demobilization following construction

Foreign materials impact on domestic supplies.

Need one federal liason agency for contact.

Need increased civil defense spending.

[illegible]

Appendix B

ANALYSIS OF ISSUES
AND DATA NEEDS FOR MX EIS

Prepared by the
Bureau of Land Management

ANALYSIS OF ISSUES AND DATA NEEDS FOR MX EIS

I. AIR QUALITY

A. Concerns and information for the MX EIS

1. Dust problems (particulates) during construction and operation are an impact.
 - a. What are the amounts of dust which will be created without control measures? With control measures?
 - b. What steps will be taken to control dust during construction and operation?
 1. If by water, what amounts are required and where will these amounts be obtained? What are the naturally occurring contaminants of water that will be released to the air or soil when the water evaporates?
 2. If by chemical means, what chemicals will be used and what are their effects on air and water?
 3. If by use of asphalt-type hard surfacing, what are the types and amounts of hydrocarbons and other chemicals which will eventually evaporate or leach out?
2. Gaseous air quality problems (nitrous oxides, sulfur dioxides, ozone, and hydrocarbons) caused by urban growth are impacts.
 - a. Information from EPA Report Number EPA-600/7-77-072a, a report on energy projects in the West, indicates that the majority of air quality problems come from triggered urban growth, rather than the project itself. What are the estimated amounts of nitrous oxides, sulfur dioxide, ozone, hydrocarbons, and particulates associated with this urban growth? The source should be listed in the EIS.
3. Degradation of visibility (short and long-range) is a problem.
 - a. By what amount will visibility be degraded? Will this be a permanent degradation?
4. Increases in airborne toxic elements (beryllium, arsenic, boron, cadmium, chromium, copper, selenium, and lead) and radioactive particles as a result of disturbance is an impact.

- a. What elements of concern exist naturally in the soils to be disturbed? What levels of naturally occurring radioactivity exist? What increase can be expected in these airborne elements, and what significance can be attributed to this increase?

5. Other concerns

- a. What is the length of necessary time estimated for revegetation and soil consolidation to reduce the amount of dust caused by construction?
- b. What areas will be affected by a degradation of air quality? By what amounts will air in these areas be degraded? A map showing pollution level contours is suggested.
- c. What will be the effect on air quality from heating and air conditioning facilities and power plants located on military bases?
- d. What provisions will be made to protect air quality in wilderness areas and national parks (Class I and Class II nonattainment areas)?
- e. Will the desert respiratory ailment known as Valley Fever (reportedly transmitted by spores) become a problem as a result of increased activity?

II. WILDLIFE

A. Concerns and Information for the MX EIS

1. Interruption of big game migration patterns is an impact on:
 - a. Mule deer
 - b. Wapiti (American elk)
 - c. Pronghorn
 - d. Desert bighorn sheep
 - e. Exotics (oryx, ibex, etc.,)
2. Big game seasonal ranges will be affected.
 - a. Winter range, summer range, etc.
 - b. Reproduction areas (calving, fawning, etc.,)
3. Harassment of feral horses and burros into other ranges. What will be this impact?

4. Disturbance of critical habitats for threatened and/or endangered species (both state and federally listed) is an impact on:
 - a. Mammals
 - b. Birds
 - c. Reptiles and amphibians
 - d. Insects
 - e. Plants
5. There will be impacts on State and Federal Wildlife Refuges from increased human activities.
6. Livestock from allotments where construction is planned may be moved onto adjacent allotments. Forage allocations for wildlife, feral horses, and feral burros will be impacted.
7. Project structures will harass migratory birds.
8. Data needs for the EIS:
 - a. Maps of seasonal ranges, special areas, migration routes, etc.
 - b. Lists of threatened and endangered species, distribution maps, and location of critical habitats.
 - c. Location of wildlife refuges.
 - d. Vegetative-type maps, allotment maps, carrying capacity estimates, etc.
 - e. Survey of proposed MX-related structure heights, location of migration pathways.
 - f. Additional needs
 1. Small game population and harvest data
 2. Big game harvest data
 3. Estimates of poaching and highway kill losses at present and projected human population levels
 4. Number of permits, licenses, etc. needed for proper harvest levels in 1979-80
 5. Estimates on how these permits, licenses, etc., should be modified in face of expanded human populations.

6. Location of springs and seeps.

III. VEGETATION

A. Concerns and information for the MX EIS

1. Reduction of range acreage and forage production will cause overgrazing and vegetation deterioration. This will also result in accelerated erosion.
2. Increased runoff will cause sediment distribution and affect vegetative cover in low lying areas.
3. Revegetation is difficult and a problem due to climate and soil conditions.
4. Additional water will need to be allocated if supplemental water is used to aid revegetation in critical areas.

IV. GEOLOGY, TOPOGRAPHY, AND SOILS

A. Concerns and information for the MX EIS

1. Stability of rock slopes and talus slopes during subgrade mining and other construction is a concern.
 - a. A stability and/or geotechnical analysis of talus slopes and rock slopes should be done.
2. Seismic activity in the area is a concern.
 - a. A survey of past earth movement or future potential for such movement should be done.
3. Stability of valley floors is a concern.
 - a. A stability study of valley floors should be done on:
 1. Rock-faults, fractures, and subsidence
 2. Soils-shrink, swell, and corrosivity
4. Geological information sources:
 - a. Fugro Consultants
 - b. USGS
 - c. State contacts
 - d. Mining companies
 - e. Universities

5. Soil erosion hazards (wind and water) need to be determined in order to provide adequate control measures that minimize erosion effects on disturbed areas.
6. Runoff and flooding from adjoining slopes will affect structures, roads, and cause sedimentation. Water diversion systems will be needed for protection. Natural drainage ways will be affected.
7. Location of coarse aggregate sources for construction materials will cause soil disturbance and require reclamation of these borrow areas. Borrow areas need to be stabilized and restored to a land form shape that is compatible with the area. Restoration must control runoff, minimize soil loss, and establish proper ground cover.
8. Road location and construction will be affected by soil properties such as shrink-swell potential and soil strength.
9. Revegetation procedures in a critical revegetation region will also be affected by soil properties.
10. Information needs for the EIS:
 - a. Land resource area data, general soil survey maps, and interpretations will provide a broad soil and setting overview inventory to identify specific area concerns.
 - b. Detailed soil survey reports will provide needed data for specific and critical area concerns.
 - c. Specific field studies will be necessary to provide data where detailed soil surveys are not available.

V. WATER RESOURCES

A. Concerns and information for the MX EIS

1. Land disturbance during construction will alter surface drainage; disturb vegetation; and increase erosion, sediment load, and flood potential.
2. MX-related water use will affect existing uses of:
 - a. Municipal, industrial, and private domestic supplies.
 - b. Irrigation
 - c. Livestock and grazing
 - d. Wildlife
 - e. Recreation

f. Minimum in-stream flow requirements

3. Will acquisition of appropriate water rights be in accordance with federal and state laws.
4. Will Native American water rights be affected?
5. The EIS should estimate water usage amounts, quality, and sources needed for construction and operation.
6. Amounts, quality, and sources of water to be used for revegetation and animal watering needs to be identified.
7. Water amounts needed to wash aggregate to remove various undesirable compounds for construction should be addressed.
 - a. The disposal technique for aggregate wash water should be outlined.
8. The EIS should identify the water usage for fugitive dust control.
9. Identify the wastewater treatment to be used at construction sites, shelters, and bases.
10. Wastewater reclamation techniques to be used should be addressed.
11. What monitoring procedures to ensure that pumping does not affect existing pools and springs will be used?
12. What wastewater reuse will be practiced?
13. What is the degree of wastewater treatment to be practiced? Secondary? Tertiary?
14. Information needs
 - a. A detailed hydrologic investigation should be done
 - b. Evaluation of the MX area sources including:
 1. Impact on existing use
 2. Monitoring procedures
 3. Mitigative measures
 - c. Evaluation and/or identification of alternative sources should be done.
 - d. Water quality should be studied for requirements of proposed use with regard to:

1. Effect on concrete usage

2. Changes through time

VI. CULTURAL RESOURCES

A. Concerns and information for the MX EIS

1. The Air Force and BLM have responsibility for compliance with historic preservation statutes and regulations.

a. The Air Force has assumed primary responsibility.

2. Cultural resource inventory and evaluation is required for the EIS.

a. A discussion of the nature and types of cultural resource values (including historic properties) should be done for the study area.

b. A determination of adverse effect on the undertaking (i.e., construction and operation, population growth and inadvertent damage during construction) should be done.

c. Avoidance or satisfactory mitigation of those adverse effects should be identified.

3. Sixteen U.S.C. Section 407f, as amended, 90 Stat. 1320, which protects projects eligible for or included in the National Register of Historic Places, outlines the following requirements for any federal undertaking:

a. Potential affected properties listed on or eligible for listing on the National Register must be identified in the EIS.

b. The Air Force must consult with the Advisory Council on Historic Preservation with respect to effects on these properties.

c. Cultural resources must be considered in planning and implementing the project.

4. A programmatic Memorandum of Agreement (MOA) is being developed. It will enable the Air Force to avoid or satisfactorily mitigate adverse effects on historic properties. It will also ensure that the EIS will be in compliance with cultural resource legislation.

a. The MOA will consider adverse impacts on cultural resources from:

1. The construction and operation of MX project.

2. Population impacts as a result of MX

3. Inadvertent damage during pre-construction studies

- b. Inventory studies described in the MOA will identify pertinent resources in or eligible for inclusion in the National Register.
- 5. The Air Force, in consultation with BLM and Nevada and Utah State Historic Preservation Officers, will determine cultural resource impacts and their significance.
 - a. Guidelines will be developed for data recovery or other appropriate protection methods if cultural resources cannot be avoided by project redesign or relocation.
- 6. Pursuant to the American Indian Religious Freedom Act of 1978 (P.L. 95-341), the MOA allows the Air Force to consult with contemporary groups that have cultural ties to the study area, to identify locations and issues of concern to them, and to work with the parties to this MOA in resolving conflicts. The EIS will take the identified concerns of these groups into consideration during implementation of this Agreement.

VII. LAND USE

A. Concerns and information for the MX EIS

1. Range use and agriculture

- a. Acreage of rangeland that will be taken out of grazing and used as roads, shelter sites, and other structures will have significant impact on the total grazing capacity of the area.
- b. Deterioration of range site conditions in conditions in disturbed areas will cause reduction of forage production and impact the carrying capacity (AUM's) of the area.
- c. Supplemental feeding, reduction in herd size, or adjustments in grazing allotments may be required when construction and available grazing acreage is reduced.
 - 1. Compensation for grazing disruption raises the issue of federal land management philosophy. Grazing on federal lands is a privilege, not a right. Therefore, the EIS must explore and discuss the rationale and legal ramifications of compensation for grazing disruption caused by a federal action of federally permitted grazing lands.
- d. Revegetation of disturbed areas will be critical. Successful restoration of desirable vegetation is difficult due to climatic and soil conditions.

e. The invasion of halogeton and other invader or undesirable plants in disturbed areas will be a problem.

1. Control measures (e.g., poisons) will cause other impacts and should be outlined.

f. Restrictions on vehicles and control on access roads through grazing areas during grazing periods will be needed to protect livestock. Increased off-road vehicle traffic will cause vegetation and soil disturbances, reducing vegetation and soil disturbances reducing forage production and accelerating erosion.

g. Additional water will need to be allocated if supplemental water is used for revegetation of critical areas.

h. Methods for road crossings through fenced allotments to accommodate the Transporter Erector-Launcher and other oversized vehicles should be identified (e.g., gates, cattle guards, etc.)

i. To determine forage production, stocking rates and impacts, range site and conditions or equivalent vegetation inventories are needed.

j. A revegetation plan outlining procedures for successful restoration of disturbed areas (including borrow pits and water diversion structures) is needed in the EIS.

2. Mineral exploration and recovery

a. The mining and mineral industry must be considered not only from a corporate view point, but also from a public concern. Present and potential mineral deposits need to be mapped, as do reserves of various energy producing fuels such as oil shale, gas, oil, and coal. Common mining and exploration methods may require a buffer area between production sites and any installation because of subsidence, stability blasting, etc.

b. Valid (prior) existing mineral rights must be addressed. These rights can only be repealed by Congress.

1. Valid existing rights include mineral location mineral leasing, and mineral material disposal.

2. Valid existing rights include access to these mineral rights.

3. An inventory and identification of all existing and valid rights to mining claims located on the grounds

to be impacted, (based on BLM Mining Claim Recordation) should be done. How MX development and/or surface occupancy will address these rights should also be included.

c. The MX project use of mineral materials will have an impact on local use and availability.

d. The MX project will have an impact on exploration and development of valuable minerals.

3. Changing Environment - The MX project will create significant changes in the landforms and vegetation of the lands where the project will be located. It will also place new structures upon the landscape. Changes in opportunities for dispersed and primitive forms of recreation; rural to urban settings; increased personnel ceilings; park forests and refuge impacts; and cumulative project oriented impacts will also occur. Specific concerns relating to the changing environment follows:

a. All actions occurring on BLM-managed lands which affect the appearance of the landscape are required under FLPMA and Bureau policy to be considered in terms of visual resource management objectives. These objectives require that such actions be understood and managed to be compatible with the natural character and visual quality of the landscape.

b. Therefore, all phases of the MX project must include considerations for scenic quality including how people feel about the proposed visual changes, and how the change may be seen. Mitigative measures must then be measured so that the project will be visually acceptable.

c. The process of identifying, mapping, evaluating, and managing the visual resources has been undertaken on a majority of public lands as a result of the Bureau's planning process. The remaining lands must be inventoried and classified while preparing the EIS. BLM will furnish its manual series 8400 to be used as a guide.

d. Diminishing opportunities for "solitude and primitive and unconfined forms of recreation." (Wilderness Act Section 2c) will result.

1. Due to the influx of people, primitive, passive forms of recreation will be reduced. More people means less solitude; more recreation conflicts; and more impacts upon the environment such as increased off-road vehicle impacts and increased rates of vandalism and other forms of depreciative behavior. Those recreationists seeking high quality recreational

experiences will be impacted to a certain degree.

e. Changes from a rural setting to pockets of an organized environment will occur.

1. Changes to environmental resources having statewide and regional affects will occur. Agricultural and grazing lands will be lost. Migratory bird species typically utilizing lands proposed for use by the MX system will be disrupted. The ecology of the region will be affected. Lower forms of plant and animal species who have adapted to the harsh climate of the area will be disrupted and possibly displaced. Archaeological resources will be irretrievably lost both wantonly and out of neglect.

f. Protection of the environment requires a greater commitment of federal, state, and local government agencies.

1. Because of a greater influx of people into an area considered sparsely populated, a public outcry for protection of environmental resources and greater management of the land (i.e., zoning) will result. This means it is possible the BLM and other agencies will need to increase their staffs to manage people, and control impacts.

g. Increased use of existing adjacent parks; refuges; forest; other areas of special concern; and proposed areas will occur.

1. Undoubtedly, more people coming to the towns and communities associated with the MX project will want to enjoy such areas as Zion National Park, Death Valley National Monument, the California Desert Conservation area. This will require increased management of those adjacent units. The Great Basin National Park in Nevada will need to be addressed regarding potential MX impacts to this proposed park unit.

h. Cumulative effects of other projects coupled with the MX project needs to be addressed.

1. A number of other projects are either in construction or anticipated in the region. Such projects as the Intermountain Power Plant, solar energy development, and others will all have cumulative effects upon the environment. With these projects and the MX project, a major question needing an answer is what will be the long-term effects on the environment that is today sparsely populated, rural, and vitally undeveloped.

i. The following is an identification of necessary information and data to address public and BLM concerns in the EIS:

1. Executive orders 11988 and 11990 concerning development in wetlands and floodplain areas. Are there any such areas within the bounds of the MX project?
2. BLM wilderness inventory areas in Utah and Nevada.
3. Lists of all endangered plant and animal species and their habitat ranges (Source: U.S. Fish and Wildlife Service, Native Plant Society). Both federal and state lists are needed as well as proposed lists.
4. Inventories of all federal, state, and county parks, refuges, and other special areas in not only Utah and Nevada, but also adjacent states.
5. State air and water quality standards. Noise standards in nearby towns and communities may also be required.

4. Other Uses

a. The project will place impacts upon the quality of and amount of use in designated wilderness areas, as well as potential and proposed wilderness areas.

1. Designated Wilderness areas have been identified in the MX site selection process. However, all other National Forest lands and public lands are under going wilderness review for potential further designation. The U.S. Forest Service, through its RARE II process, identified such potential areas. BLM as required under FLPMA has also identified similar areas. These BLM wilderness study areas are managed to maintain the area's suitability for preservation as wilderness by allowing compatible resource use. This management policy remains until such restrictions are released.
2. The wilderness interim management policy for public lands will either be removed by the suitable BLM State Director when wilderness designation is determined inappropriate, or by Congress when the area is designated wilderness or removed from further consideration. The BLM will notify the Air Force when a Bureau determination is made. However, ultimately wilderness decision will only be made by Congress. This will undoubtedly be a key land need issue regarding the MX Project.
3. Guidelines for management in wilderness review areas

are found in the Bureau's publication, "Interim Management Policy and Guidelines for Lands Under Wilderness Review, dated December 12, 1979. This will be made available for the EIS.

- b. The project will place impacts on recreational use in the area.
 - 1. Loss of open space opportunities for primitive and dispersed forms of recreation will occur.
 - 2. Recreation user conflicts will increase due to greater competition for recreation areas. This will affect the quality of the recreation experiences.
 - 3. Increases in off-road vehicle (ORV) use of the desert will create greater demand for competitive events and noncompetitive ORV use.
 - 4. Trail use will increase requiring regular schedules of maintenance. Historic trails, including Escalante, Pony Express, and Kanosh/Goshute are within the proposed MX area.
 - 5. The influx of construction workers and the remaining permanent population will create an increased demand for new and expanded intensive recreation facilities (e.g., more campgrounds, picnic areas, ORV parks, horse trails, etc.)
 - 6. There will be an increase in overall recreational use in the surrounding area due to the availability of roads.
 - 7. To keep pace with the expected increased demand for quality recreational experiences, a greater need at all levels of government to increase recreation planning and management efforts (e.g., greater personnel needs - hiring of recreational and ORV specialists, interpretive specialists, etc.) will be required
 - 8. There will be an increased need to protect and preserve valuable and sensitive recreation resources such as proposed and existing wilderness areas, national natural landmarks, historic trails, archaeological resources, etc.
- c. The projects will create increased litter control programs
- d. The project will create wind erosion problems. Control measures should be outlined in the EIS

e. The following information and data needs should be addressed in the EIS:

1. How many areas and acres identified as Wilderness Study Areas in the BLM's wilderness program stand in conflict with the MX Project regarding impairment of wilderness characteristics
2. How many ORV events have taken place in the proposed MX area? How many more ORV events can be expected to be demanded due to the influx of people
3. Identify all historic and recreation trails. A judgment on increased maintenance personnel should also be made
4. An inventory of the number of campground units, camp sites per unit, and picnic areas to determine future needs should be made

VIII. LAND ACQUISITION AND RIGHTS

IX. SOCIOECONOMIC

The highest priority in the EIS should be assigned to socioeconomic impacts. This includes effects from construction and operation of the system on the people (present residents and construction/operating forces and their families); effects on state and local governments; and effects on existing and local economies

A. Concerns and information for the MX EIS

1. The first step in the assessment of socioeconomic impacts is a more precise projection of employment and population. Projections should be made for each year on:
 - a. Construction work force and operating workforce
 1. By civilian/military
 2. By local hire, permanent immigration, temporary immigration, and long-range commuters
 - a. For each, the number with families
 - b. The resulting secondary workforce (explain the methodology used)
 - c. The number of unemployed attracted to MX employment
2. Final projection of:
 - a. population

- b. Number and size of households
 - c. Number of school children
 - d. Employment per household
3. Projections must be divided by states
- a. Should be allocated to counties
 - b. Should be allocated to communities
4. The major categories of socioeconomic impact include: Housing, Local Government Services and Fiscal Impacts, Social Effects, and Economic Activities
- a. Housing - The first and most noticeable impact of rapid large-scale development is on housing. The EIS must give major attention to housing and associated infrastructure (water and sewer systems, and streets)
 - 1. Require projections of permanent and temporary housing for each year on:
 - a. Single family, multi-family, mobile home, group housing (this should be by preference, and by expected type)
 - b. By same areas as employment and population projection
 - 2. Assess effects on present housing by:
 - a. Reduction of present vacancy rate
 - b. Inflation of sales prices, rents, mobile home lot fees
 - c. Estimates of overcrowding
 - 3. Assess potentials for, and constraints on, new permanent and temporary housing dependent upon:
 - a. Availability of buildable land (private, state, public lands)
 - b. Availability of home builders and skilled labor force
 - c. Availability of water and sewer systems (capacity of present systems, need to meet EPA requirements)
 - d. Survey of: Land use plans, zoning ordinances, building codes, housing codes enforcement

- b. Number and size of households
 - c. Number of school children
 - d. Employment per household
3. Projections must be divided by states
- a. Should be allocated to counties
 - b. Should be allocated to communities
4. The major categories of socioeconomic impact include: Housing, Local Government Services and Fiscal Impacts, Social Effects, and Economic Activities
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 - c. Estimates of overcrowding
 - 3. Assess potentials for, and constraints on, new permanent and temporary housing dependent upon:
 - a. Availability of buildable land (private, state, public lands)
 - b. Availability of home builders and skilled labor force
 - c. Availability of water and sewer systems (capacity of present systems, need to meet EPA requirements)
 - d. Survey of: Land use plans, zoning ordinances, building codes, housing codes enforcement

capabilities of local governments

4. growth inflation in costs on:

- a. Site acquisition and development
- b. Building costs
- c. Financing (considering interest rates and downpayments)

5. Relate projected housing costs to projected household incomes.

6. Project numbers of present residents who will no longer be able to afford housing in area

7. Estimate land use requirements for residential purposes

b. Local Governments

1. Services Required

a. School: project numbers of classrooms, by level (elementary, high)

b. Water and sewer: project gallons per day requirements demand for water pumping and distribution systems demand for sewage collection and treatment systems

c. Highways and streets: project increases in traffic volume

project demands for improvement of present system

project demands for new roads and highways (public) and new local streets (part of housing costs)

d. Health and hospitals: public facilities demand for typically private--doctors, clinics

e. Other local services: parks, recreation, library, welfare, social services

f. Public safety: police, fire, courts

g. General government: administration and support

h. Project capital costs for these services for permanent and temporary population

i. Project operating and maintenance costs over life of projects for these services considering built-in inflation of rapid growth

j. All cost figures in EIS should be in constant 1980 dollars

k. Sources of Revenues:

Local taxes:

Property
Sales
Service fees
Other

State shared taxes and grants

Gas tax
Sales tax
Vehicle taxes
School foundation aid
Other

Federal Assistance Programs

Primary examples of programs include: Farmers Home Administration (FMHA) community facilities loans, water and sewer loans, water and sewer loans and grants

Environmental Protection Agency (EPA) grants for wastewater treatment facilities

Housing and Urban Development (HUD) grants and loans for community development

Heritage Conservation & Recreation Service (HCRS) grants for outdoor recreation

Federal Aviation Agency (FAA) grants for airports

l. EIS must consider the significant constraints to obtaining sufficient federal assistance under existing programs, including:

Problems of local capacity
Federal policies and restrictions
Local problems in meeting assistance requirements
State restrictions on local actions

m. EIS must consider potential mitigation measures:

Increases in local sales tax rate
State assistance
Targeted federal assistance programs
DOD programs
Impact assistance to schools
Payments in lieu of taxes
Special impact assistance, patterned
after Trident program

n. EIS must demonstrate differential effects on:

Cities and towns, and local districts
Counties and school districts
State government

c. Social Effects

1. There must be a general discussion based on rapid growth situations of:

- a. Effect of MX system construction and operation on life styles of present residents, differentiating among working age families, elderly townspeople, ranchers, miners, women
- b. Effects of speeded-up pace, congestion, overcrowding
- c. Inflation in prices and rents of housing
- d. Recreational and cultural activities
- e. Alcoholism and mental health problems
- f. Crimes toward people and property
- g. Problems of wives and children of construction workers
- h. Potentials for employment among spouses of MX workers and present residents
- i. Effects of changes in quality of life on MX construction and operation labor turnover, productivity, construction delays

d. Economic Impacts - These are impacts that have been identified by states, as well as BLM

1. Effects on regional employment and unemployment
2. Needs for training programs for local residents to assure potential for employment

3. Projections of income levels, per capita and household
 4. Effects of competition for:
 - a. Cement
 - b. Water
 - c. Labor
 - d. Financing
 - e. Energy on all construction costs in the region
 5. Effects on present economic activities:
 - a. Agriculture, especially grazing
 - b. Mining and mineral development
 - c. Secondary business, especially effects of military personnel spending on base
 - d. Recreation/tourism/transportation (air, car, bus)
 - e. Industrial development
 - f. Local business
 6. Effects on land values
 - a. What is the opportunity cost of using the BLM land?
 7. Projected increased local spending for materials and services for the MX system
 5. Socioeconomic Impacts-Indian - The EIS will have to address the Indian Socioeconomic impacts for each of the reservations and colonies that are directly or indirectly affected by MX. This will have to be done separately because the Native Americans are autonomous
- The construction and operation of the MX project will stimulate the migration of Indian people to their respective reservations or colonies. This action could double or triple the Indian population and greatly expand their socioeconomic problems
- a. Indian employment and population projections should be made for each year on:
 1. Construction workforce and operation workforce

- a. By reservation or colony
 - b. By local hire, permanent immigration, temporary immigration, and long-range commuters.
 - c. For each the number of families
- 2. The resulting secondary workforce (explain methodology used)
- 3. The number of unemployed attracted to the MX employment
- b. Final projection (by reservation or colony):
 - 1. population
 - 2. number and size of households
 - 3. number of school children
 - 4. employment per household
- c. The major categories of socioeconomic impact include: housing, Bureau of Indian Affairs and tribal government services, fiscal impacts, social effects, and economic activities
 - 1. Housing--the first and most noticable impact of rapid large-scale development is on housing and associated infrastructure.
 - a. Projections of permanent and temporary housing, by reservation or colony including: Single family, multi-family and mobile home
 - b. Assess effects on present housing
 - c. Assess potentials for, and constraints on, new permanent and temporary housing dependent upon:
 - Availability of buildable land
 - Availability of home builders and skilled labor force
 - Availability of water and sewer systems (capacity of present systems)
 - d. Project costs of housing based on usual rapid growth inflation in costs on:
 - Site acquisition and development
 - Building costs
 - Financing (HUD)
 - e. Relate projected housing costs to projected household incomes

- f. Project numbers of present residents who will no longer be able to afford housing on the reservations or colonies

2. Local Governments

- a. Education - project number of seats by levels (elementary and high school)
- b. Water and Sewer - project gal/day requirements, demand for water pumping and distribution systems, demand for sewage collection and treatment systems
- c. Streets - project demands for new roads and local streets (part of housing and industrial development costs)
- d. Health and Hospitals - U.S. public health services demand for doctors, clinics, and emergency services
- e. Other local services Project demands clarification of water and grazing rights, Indian business enterprises, financial assistance, job placement and training, law enforcement services, social services, Tribal government services, Tribal planning services, Contracting and Grants Administration, personnel services, financial management, and management services (engineering, property, and safety)
- f. Project capital costs for these programs for permanent and temporary populations
- g. Project operating and maintenance costs for these services over life of project. (Consider built-in inflation of rapid growth)
- h. Source of revenues - The prime source of funds is thorough federal appropriations. It is administered through the Bureau of Indian Affairs. The tribal groups are eligible and do receive grant and loan funds. Because the government has the trust responsibility for the well being of the Indian people, state and local taxes are not provided
- i. Federal Domestic Assistance - Indian tribes and Indian people are eligible for grants, loans, and personnel services from hundreds of federal programs. Such programs are listed in the "Catalog of Federal Domestic Assistance."
- j. The EIS must consider the significant constraints to obtaining sufficient federal assistance under

existing programs including:
Problems of local capacity
Federal policies and restrictions
Local problems on meeting assistance requirements -
matching monies
State restrictions

- k. EIS must consider the potential mitigation measures:
 - State assistance
 - Targeted federal assistance program
 - DOD program
 - Impact assistance to schools
- 1. EIS must demonstrate difference effects on:
 - All Indian reservations and colonies directly and indirectly affected
- 3. Social Effects - There must be a general discussion based on recent rapid growth situations regarding reservations and colonies and Indian people living throughout the target area
 - a. Effect of MX system construction and operation on life styles of people, differentiation among working age families, elderly, and women
 - b. Effects of speeded-up pace, congestion, overcrowding
 - c. Inflation in prices and rents of housing
 - d. Recreational and cultural activities
 - e. Alcoholism and mental health problems
 - f. Crimes toward people and property
 - g. Problems of wives, children, elderly, of construction workers
 - h. Potentials for employment among spouses of MX workers and present residents
- 4. Economic Impacts - There are impacts which have been identified by Indian people:
 - a. Needs for training programs to assure potential for employment
 - b. Effects of competition for
 - Water
 - Labor
 - Financing

- c. Effects on present economic activities
 - Grazing
 - Services industries
 - Local business
- d. Effects on land values cost of using BLM land - grazing
- d. Effects on land values cost of using BLM land-grazing cost of purchasing land for consideration
- e. Projected increased local spending for material and services for the MX system.

X. NONRENEWABLE RESOURCES AND CONSTRUCTION MATERIALS

A. Concerns and information for the MX EIS

1. Long and short-term effects on the local region, the western United States, and the United States should be considered for use of the following materials:
 - a. Gasoline and other transportation fuels (diesel, aviation fuel)-Use will increase drastically. How will this usage be affected by national energy policy and state fuel allocations?
 - b. Cement - Will the increase in its use require increased production at cement facilities? If so, what facilities will likely be affected?
 - c. Steel - The estimates of steel usage by type (e.g. rebar, roll stock, pipe, etc.) should be addressed.
 - d. Other metals (aluminum, copper, chromium, titanium) How will the use of these metals of other metals of high interest affect current supplies?
 - e. Asphalt - How will its use for cluster roads, connecting roads, base roads, and parking lots affect supplies?
 - f. Wood - although renewable, construction efforts will undoubtedly produce a short-term supply shortage.
 - g. Local Materials - The use of any local resources (e.g., adobe, gravel, etc.) should be explained.
2. The use of aggregate machinery should be identified.
 - a. Will use for this project cause a shortage to other areas?

3. Storage of materials and equipment will tie up extensive land areas for long periods of time. Explain these impacts.

XI. ENERGY AND UTILITIES

A. Concerns and information for the MX EIS

1. The necessary fuels to operate heating plants and air conditioning units on bases or operating facilities should be identified.
 - a. What are the air quality implications of these fuels?
2. For concerns on wastewater and water treatment facilities, see Water Resources section.
3. The type and number of sanitary facilities used at shelters, clusters, maintenance facilities, operating bases should be outlined.
4. The number and location of electrical transmission lines should be identified in the EIS. Their transmission voltage should also be included.
5. Communication will be primarily by fiber optics link. However, remote surveillance will apparently use radio communications. Backup communications will probably be by microwave. Where will all these towers be located? Some locations will have to be coordinated with the Federal Aviation Administration. What will the aesthetic effects of these towers be on the dominant terrain features?
6. The use of alternate energy sources brings up a number of concerns:
 - a. What type of solar energy will be used (building heating, solar-assisted heat pumps, photovoltaic, high or low temperature)? Will inclement weather induce additional electrical usage? If so, how much? Will storage be required? If so, what type will be used?
 - b. The use of wind energy is mentioned. What type of output is envisioned? Electrical? Will storage facilities (batteries) be required? How many and what size of wind machines will be used? What will be the overall aesthetic effects?
 - c. Geothermal energy sources may be used. If so, how will hydrogen sulfide, mercury, and argon concentrations, which usually occur with geothermal development, be handled? Geothermal sources are generally quite close to the location of intended use. Where are the proposed geothermal sites?

7. What will building the MX system do to the presently planned energy projects in Utah and Nevada? There will be competition for labor, materials (especially cement, water, and financing, at least.

a. Project the effects on timing and costs for these projects:

PROJECT	COMPLETION
Intermountain Power Plant: Lynndyl, Utah Transmission lines to California	1986-88
Allen Warner Valley Complex Alton Mine, south Utah Warner Valley Power Plant, St. George, Utah Allen Power Plant, Clark County, Nevada Coal slurry lines from mine to plants Transmission lines from plants to S. Calif.	1985-88
Rocky Mountain Gas Pipeline, proposed: SW Wyo. to S. Calif.	1985
Reid Gardner Power Plant #4, Clark County, Nevada	1983
Mountain Fuel Coal Gasification Plant	1990
White Pine Power Plant, Ely, Nevada	late 1980s
Valmy Power Plant, Valmy Nevada	mid 1980s
Morrison Mesa Solar Power Plant	proposed

(Descriptions of these projects can be provided)

XII. OTHER ISSUES

A. Concerns and Information for the MX EIS

1. The EIS should contain more alternatives than the basic "preferred" alternative presented by the Air Force. The process of narrowing of potential sites through the United States must be included; It is desirable that at least one other major site be included. Furthermore, even within the preferred area, there are significant differences in impact from different locations of the Operations Base. The EIS alternatives, then, might include:

a. Preferred area-Nevada and Utah (as shown in Blue Book)

1. With first choice on Operations Base(s)

2. With alternative choice on Operation Base(s)

- b. Alternative site within Nevada/Utah geotechnical area
 - c. Second ranked area in United States
 - 1. Derive from "narrowing paper" incorporated into EIS
 - d. No action alternative
 - 1. No MX or other missile system
 - e. Alternatives a1, a2, and b should look at the use of existing communities vs. feasibility of new town(s) AND the effect of establishment of permanent Air Force Base(s).
2. Public Health and Safety
 - a. Missile propellants contain some toxic or hazardous materials. What provisions will be made to protect persons from the effects of such materials?
 - b. Are contingency plans made to prevent the spread of radioactive materials in the event of a non-nuclear explosion in one of the shelters?
 3. The EIS should outline policing needs to prevent promiscuous use of surrounding recreational lands that causes accelerated erosion, disruption of wildlife, and vegetation destruction.
 4. Noise will be a problem during both construction and operation
 - a. What actions will be taken to control excessive construction noise such as blasting?
 - b. What actions will be taken to mitigate continuing noise problems such as off-road vehicle use?
 5. Who will maintain the roads? Existing roads will be overloaded, state/county capacities for maintenance. The same maintenance problems will occur with borrow pits, culverts, and bridges.
 6. Who will control development phasing? Unless phases are well placed, activities in one phase will eliminate alternative actions of a later phase. A master plan showing all facilities, locations, and activities by phase should be developed.
 7. Federal funding (other than the direct cost being appropriated by Congress - \$33 billion). The MX Project funds will not address the following:

- a. Funds for the expansion of BLM district offices (positions, operational costs).
 - b. Funds for the expansion of BIA offices including an area office and two agency offices. Funds are also needed for the expansion of tribal governments.
 - c. Funds for the expansion of the other groups involved in providing services for MX.
8. There will be a wide variety of mitigation measures for construction and operation of MX that will have to be addressed. This mitigative projection will have to be made for:
- a. cost (total and by year)
 - b. Project or program
 - c. agency or group of agencies involved
 - d. time period
 - e. type of funding
 - f. procedures

The agencies not having the funds for the mitigative measures will have to seek additional appropriations from Congress. The Air Force should include these funds as part of the total cost of the MX project.

Appendix C

The Office of Economic Adjustment

MX Program Planning

The President's Economic Adjustment Committee (EAC) is tasked with providing assistance to communities that may be affected by defense programs. EAC works under the guidance of President Carter's Executive Order 12049, dated March 27, 1978, and includes 18 Executive agencies under the chairmanship of the Secretary of Defense.

The Committee works with local, state and federal agency representatives to develop adjustment strategies and coordinated action plans which address the major economic and social problems in affected areas. Close liaison is maintained with the appropriate Federal Regional Councils. EAC has assisted 178 communities in 45 states, Puerto Rico, and Guam since 1970.

The Office of Economic Adjustment (OEA) is the operational element of EAC, and provides assistance to communities in developing comprehensive economic adjustment plans and implementation strategies. Although OEA may provide funds for the development of these plans, it does not provide any type of assistance payments to the community. But EAC does coordinate financial resources available through federal departments and agencies. Some examples of federal programs that have been used to support economic adjustment programs in the past are: The Department of Housing & Urban Development's Urban Action Grant Program; the Economic Development Administration's Title IX Special Adjustment Assistance Program and Title I Public Works Program; and the Department of Labor's Comprehensive Employment and Training Program.

OEA anticipates that the size and complexity of the MX project will create economic disruptions in deployment areas. To ensure that the EAC is prepared to meet community assistance needs, the following steps have been undertaken:

- (1) One million dollars was provided to Utah and Nevada by the Secretary of Defense and Secretary of the Air Force through a special amendment to the Military Construction Appropriations bill. The governors of Nevada and Utah are using those funds to upgrade state and local planning capacity and to initiate MX-related impact studies.
- (2) A special EAC task force for MX environment and community impact assistance has been established in Washington, D.C. Co-chaired by the Air Force and OEA, this task force is responsible for coordinating and ensuring the timely delivery of federal assistance to MX-impacted communities. Similar interagency task forces have been established at the federal regional level by the Federal Regional Councils in San Francisco and Denver.
- (3) OEA, in coordination with state, county, and Air Force representatives, has tasked two consulting firms to help assess current community development in areas potentially affected by MX deployment, and to develop a preliminary economic adjustment program. OEA has also organized staff specialists to provide local and state officials with additional technical assistance. Two OEA specialists will be assigned to live in the impact area -

one in each state.

- (4) A preliminary framework for an economic adjustment strategy has been developed by OEA in cooperation with Air Force and Executive branch personnel. It reflects past EAC experience in economic adjustment locations and is expected to respond to the magnitude, timing, and complexity of the MX program. In general, experience has shown that the key to successful economic adjustment programs is strong, effective local leadership, operating together with an effective local/state/federal partnership.

APPENDIX D

**STATEMENT FROM THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20400

Dr. Carlos Stern
Deputy for Environment and Safety
Department of Air Force
The Pentagon
Washington, D.C. 20330

Dear Dr. Stern:

The Environmental Protection Agency has reviewed the December 1979 MX Scoping Handbook and the Supplement to Appendix D. The Handbook and the Supplement broadly address the potentially significant environmental issues and does not provide sufficient information on alternative sites, status of ongoing environmental studies, and details of the analyses being conducted. In order to assure the development of adequate and specific information to carryout the Agency's review of the EIS, we are offering the following comments relating to air and water quality and solid/hazardous waste management for your consideration.

The scoping document outlines the potential effects associated with increased water demand associated with program implementation. Although preliminary reports indicate there may be water available in aquifers underlying some of the valleys being surveyed, analyses should be performed on the long term effects of utilizing and possibly depleting ground water resources. As a minimum, the water resources analysis should include an accurate assessment of the availability of water resources and of short and long term water impacts of the project.

Although the scoping document does address the water resources issue, it contains very little discussion of wastewater disposal. It is anticipated that the Air Force will provide wastewater treatment facilities for the operating bases and other facilities directly related to MX operations. However, the large increase in population, especially during the construction phase, will overtax existing wastewater facilities requiring expansion to meet anticipated loads. In addition, there will be a need for expanded wastewater treatment facilities more directly related to missile operations, and both needs should be addressed in the EIS.

The major air quality concerns associated with the construction and operation of the MX systems include fugitive dust emissions, possible excursions (violations) of the National Ambient Air Quality Standards, possible adverse impacts on designated Class I areas (for the prevention of significant deterioration) and secondary air quality impacts associated with growth in the project area. Listed below are nine essential elements of the air quality analysis, which as a minimum, should be addressed in the EIS:

1. A review and analysis of applicable federal, state and local air quality laws, regulations and standards which are applicable to this project. As you know the Air Force must comply with applicable pollution control standards established pursuant to the Clean Air Act;
2. The identification of all major sources of air pollution associated with the proposed project;
3. The development of a comprehensive emission inventory for the estimated time of completion, plus 10 years and plus 20 years. Information and data on both primary (direct) and secondary (indirect) sources of emissions should be included;
4. A summary of available meteorological and air quality data for the project area;
5. An assessment of the potential air quality impacts through the use of air quality modeling techniques;
6. A demonstration that the increased emissions resulting from project actions do not exceed the area increment for the prevention of significant deterioration of air quality;
7. An assessment of the impact of the proposed project on visibility;
8. An assessment of the contribution of the proposed project on interstate air pollution; and
9. The identification and assessment of potential mitigation measures to minimize adverse air quality impacts, indicating which of the measures are to be implemented as part of the proposed project.

In addition to addressing our concerns that deal with air and water quality, the EIS should also include an assessment of the solid and hazardous waste impacts of the proposed project, an area of environmental concern not readily identified in the documents we reviewed.

In view of the scope and number of the major technical studies that are (or will be) conducted to support the MX siting decision EIS, I am proposing that a meeting be held in Las Vegas, Nevada on April 18, 1980. The purpose of the meeting is to brief EPA staff on the broad scope of the MX project, to discuss the concerns we have described above and to promote coordination between the technical staffs involved in the preparation and review of the siting decision EIS. Along with members of my staff, representatives from our Regional Offices in Denver and San Francisco, including the Regional Administrators, would attend the meeting. The suggested 2 part meeting format consists of a briefing and discussion of the MX program in the morning followed

by a more detailed exchange between EPA and Air Force technical staffs. As the EIS is the key document in which environmental impacts will be addressed, we believe that the contractor(s) preparing the document should be represented at this meeting.

If the purpose, date and location for the meeting is acceptable, my staff will make the final arrangements for the agenda and place for the meeting.

We appreciate the opportunity to provide comment on this document. If we can answer any questions regarding our comments, or if we can be of further assistance, please contact Charles Maneri, on my staff at 755-0780.

Sincerely yours,

William N. Hedeman, Jr.
Director
Office of Environmental Review (A-104)

APPENDIX E

STATEMENT FROM THE DUCKWATER
SHOSHONE TRIBE, DUCKWATER RESERVATION
NEVADA

Duckwater Shoshone Tribe
Tribal Government Office
Duckwater, Nevada 89314

January 18, 1980

Ballistic Missile Office
Civil Engineering/MNNBD
Building 524
Norton A.F.B., California 92409

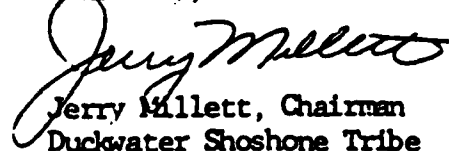
Dear Sir:

Enclosed is the initial statement of the Duckwater Shoshone Tribe regarding the MK System. Further concerns will be addressed when we are supplied with full, complete and accurate information.

On January 14, 1980 at Ely, Nevada representatives of the U.S.A.F. indicated a willingness to meet with the Duckwater Tribal Government. We set a tentative meeting for February 20, 1980 at the Duckwater Reservation, Nevada. This date is not the most convenient for us. If possible, we would like to schedule the meeting for March 19, 1980 at the Duckwater Reservation, Nevada. We are suggesting this later date in order that you may provide us with the information we have requested and we will have time to assess the information.

We are also enclosing a copy of a land status report from B.L.M. The land in question is land we have requested D.O.I. to withdraw from the public domain and add to the Duckwater Reservation. Representatives of the U.S.A.F. and the B.L.M. claimed ignorance of our long standing withdrawal request. The representative advised us to provide this information to you.

Sincerely,


Jerry Millett, Chairman
Duckwater Shoshone Tribe

JM/jd
Enclosure

DUCKWATER SHOSHONE TRIBE

Tribal Government Office

Duckwater, Nevada 89314

1. We believe the United States Air Force environmental exercise is a sham. We do not believe the USAF has any intention of performing a full and reasonable EIS which complies with the intent of the environmental legislation. Our reason for this belief is the USAF's stated intention of commencing construction in January 1982. A full complete and serious study of any or all of the potential sites could not be completed by January 1982.
2. The "MX System and the Environment," dated December 1979, states 'The Environmental Impact Statement will include a comprehensive assessment and analysis of the effects of deploying, construction, and operating the missile system in a number of valley locations in Nevada and Utah.' We understand the Nevada/Utah location has been predetermined and the EIS is only to confirm the determination. We further understand the USAF intends to perform an EIS on two "typical" valley locations out of a possible 34 valley locations. If the latter point is true, the USAF is making a sham out of the EIS proceedings and is going ahead with utter disregard for the citizens of Nevada and Utah. We demand a full and complete environmental assessment be performed in all areas to be impacted by the MX proposal.
3. As aboriginal residents of the impacted area, we demand the USAF perform a study of the impact on our psycho/social environment, knowing that we are the primary target area for an enemy attack.
4. The USAF has failed to properly assure us the land will be restored to its original state when the MX reaches the end of its useful life. The USAF must address whether or not the land will be usable at the end of the life of the MX.
5. The EIS must address all issues of both the construction and operational phases of the proposal.
6. The USAF must address the inflationary aspect of the proposal not only on the immediately impacted area, but also on the nation.
7. Water is a precious commodity in the impacted area. We understand that both construction and operation of the system require considerable amounts of water. These facts demand the USAF perform a full and complete EIS on all impacted areas, not a few typical valley locations. We, the Duckwater Shoshone Tribe, consider water to be a non-negotiable and non-compensable resource. We demand the EIS not only address the water used by the MX but also the effect on the water supply available to the rest of us.

8. Archaeological and historical sites are located throughout the impacted area. The burden to discover and protect these sites rests with the USAF. This demands a full and complete study of all the impacted area. Our religious, cultural, and burial sites must be excluded from any potential locations of the system.
9. The EIS must provide an in-depth analysis of the economic effects of disruption to agriculture interests during the construction phase of the project. The USAF must address compensation for this disruption.
10. The EIS must address earthquake potentials and ramifications at all valley sites.
11. At the scoping meeting, we understood that the results of various studies will not be available until late spring. These studies must be available to us and results included in the draft EIS prior to the hearings scheduled on the draft EIS.
12. We understand there is a possibility of the USAF introducing "fasttrack" environmental legislation. Given the nature of this project and its impact on our environment, the Duckwater Shoshone Tribe opposes any "fasttrack" legislation. We think the USAF should be required to comply with existing environmental legislation.
13. The USAF has informed us that it is providing results of studies and other information to the State of Nevada. The USAF should recognize the governmental nature of the Duckwater Shoshone Tribe, its relationship to the United States, and afford us the same courtesy as it is affording the various states.
14. The Duckwater Shoshone Tribe requests the supplements available for Appendix D and that the studies be available to us with sufficient time for us to analyze them prior to meeting with the USAF at the Duckwater Reservation, Nevada.
15. The Duckwater Shoshone Tribe demands the USAF and the Department of the Interior consider our request to have our reservation expanded. Our request encompasses the area included in the grazing permit from BLM to the Duckwater Stockman's Association. This request was submitted to the Bureau of Indian Affairs in 1977. The requested expansion of the Duckwater Reservation includes portions of Railroad Valley, Big Sand Springs Valley, Little Smokey Valley, and Duckwater Valley. We are unable to provide an exact legal description due to the fact that BLM and BIA have been unable to provide us with the exact legal description. For your information, we are including a partial legal description which has been provided to us. The area not only includes our economic base, but also areas of traditional and religious significance to us. We have one map of the Duckwater Planning Unit on which BLM has depicted what it thinks to be our grazing area.

16. The USAF has agreed to meet with us on the Duckwater Reservation. The USAF wants to meet with us on February 20, 1980. It will be more convenient for us and the members of the Duckwater Tribe if the USAF could meet with us at our regular Tribal Council Meeting in March. It is scheduled for March 20, 1980, at 1:00 p.m.
17. As a result of the legal relationship which exists between the Duckwater Shoshone Tribe and the United States of America, we expect the USAF and the DOI to respond directly to our concerns and to communicate directly with us in an open, honest, and reasonable fashion. In order for us to be able to make intelligent comments, we have to have accurate information provided to us in a timely manner. To date, the USAF has provided us with ambiguous information in a less than timely manner.

APPENDIX F

SUMMARY OF CONGRESSIONAL TESTIMONY

BY NEVADA AND UTAH

STATE GOVERNORS

Governor Robert List of Nevada and Utah's Governor, Scott Matheson, expressed concern about MX project impacts in their states. The following summarizes their statements to the Subcommittee on Public Lands of the House of Representatives Committee on Interior and Insular Affairs, given in Washington D.C., 24 January 1980.

In his statement, Governor List emphasized:

- o Reasonable access to public lands
- o Full and objective consideration of alternative sites, with legitimate and understandable reasons for elimination of all other alternative sites if the project is narrowed to Nevada and Utah. The decision must be based upon finding all other sites categorically insufficient.
- o Assurance that the withdrawal of public lands be absolutely minimized and compensation for the sacrifice be guaranteed
- o Adequate time afforded to the state to study expected impacts before decisions upon complex issues
- o Legislation to ensure that every possible effort will be made by the Air Force to reduce the amount of land withdrawn from public use for MX. To accomplish this, every system design and basing mode alternative must be fully explored. For any project option militarily acceptable, the one with the least impact on land accessibility should be deployed.
- o There must be direct state participation in the approval of any withdrawal plan submitted to Congress
- o Consent of the state prior to federal acquisition of state or privately owned property for use in the system
- o Land withdrawal legislation to require that the federal government, including the Air Force and U.S. Army Corps of Engineers, be subject to state laws. This includes state building regulations, health and safety codes, and particularly state water laws.
- o Land withdrawal plan must include a mechanism for the sale of public lands to the state
- o Congress must place restrictions on system expansion, if it becomes operational. Legislation should be enacted to require a full EIS review and the Governor's approval before any expansion is permitted.
- o Legislation to provide for reclamation of any land which may be abandoned in years to come

- o Congress to provide for the transfer of land title to the state upon abandonment
- o Livestock grazing and other agricultural uses, mining, and oil exploration must not be unnecessarily restricted. Areas of eastern and southern Nevada are considered to be some of the most promising oil regions in the United States. The MX system must not be allowed to halt development of this badly needed resource. This applies to other mineral resources as well.
- o Federal funds to be available in conjunction with land withdrawal/restrictions to reimburse farmers, ranchers, and miners for losses resulting from MX-related disruption.
- o Historically, grazing permits held by Nevada ranchers are held contiguous to the home ranch. This practice must remain intact.
- o Ideally, rancher's grazing allocation of AUMs should remain, unchanged, and livestock be allowed to remain on site.
- o Provide schools, water supplies, police and fire protection, sewage disposal, and a host of other services. Potential lack of educational facilities must be addressed.
- o Federal assistance for MX-related growth, forthcoming from Congress, must not only be for capital improvements, but also for continuous operations and maintenance. Funds must be specifically earmarked for Nevada. Without a guarantee of assistance funds availability, on a permanent, continuing basis, placement of MX of Nevada is totally unacceptable.
- o The impact on all facets of citizens, lives must be carefully weighed by Congress, the President, the Air Force, and the states before any land is withdrawn from public use.

In an addendum to his testimony, Governor List also asked that legislation address the following concerns:

- o Potential State Park sites, such as Freilberg, (Leviathan), Mountain Cave, Rainbow Canyon, Bristol Wells, Big Trees, Pine-Mathews Reservoir, and Cleveland Ranch, be eliminated from land withdrawal consideration
- o The State of Nevada must have assurance that landmark sites under the Natural Landmarks Program not be included in land withdrawal for MX (a list of candidate sites is available)
- o Use of the area for recreation, specifically hunting, fishing, off-road vehicle use, rock collecting, nature study, hiking, sightseeing, and photography not be unduly restricted by land withdrawal
- o The impact of wildlife studied, and measures taken to guarantee

funds to mitigate such expected impacts due to habitat disruption, human activity interference, water diversions for construction and municipal use, fencing, and increased access

- o Protection of wildlife refuges guaranteed prior to land withdrawal
- o Guarantee that the state would not lose any funds from the Land and Water Conservation fund (the Land and Water Conservation Fund Act of 1965, Section 6F(3))
- o Assurance that diversion of water to MX will not deplete availability for future recreation use and rehabilitation of desert ecosystems
- o Assurance to agriculture and mining interests that restrictions of their continued use of the land will be minimized, and that federal funds will be available for increased costs due to relocation or production difficulties caused directly by MX deployment in the area

In his statement, Utah's Governor Matheson discussed MX management mechanisms in Nevada and Utah, alternate deployment sites and modes, MX legislation, and likely socioeconomic impacts. With respect to alternate deployment sites, he urged the Air Force to "seriously consider the possibility of breaking up deployment of the system to smaller and more manageable subunits which might be within the assimilative capacity of a larger number of states and localities." The Governor also stated that "the Air Force should be compelled to fully examine at least two other alternate deployment areas before a final deployment decision is made."

Turning to alternate deployment modes, Governor Matheson argued that "at the state level, we have neither adequate security clearances, staff resources, nor technical background available to resolve such questions, and indeed it seems inappropriate for the governors of two states to attempt to do so." He later added, "I believe that your subcommittee is in an excellent position to air a thorough national debate on the strategic issues prior to deployment." He encouraged the House subcommittee to "engage in such an effort, perhaps in cooperation with other appropriate committees of the Congress."

Regarding legislation, the Governor asked that the following minimal elements be included:

- o Withdrawal of public lands should be limited to only those specific areas which will actually be fenced from public use.
- o Withdrawal proposals, when fully developed by the Air Force, should have the concurrence of the governors of the affected states, prior to being submitted to the Congress for final approval.
- o Guarantees of continuing public access and multiple use of all

public lands not fenced

- o Any proposed subsequent expansion of MX should require an additional environmental impact statement and Congressional approval.
- o There should be statutorily required adherence to state water laws in the application for and use of surface or subsurface waters.
- o Legislation should provide authority for the timely transfer or sale of public lands to impacted states or local governments for city expansion or community development purposes.
- o Legislation should require that planning for Air Force base locations and facilities utilizing public lands should be coordinated with and subject to the land-use planning systems and restrictions of state and local governments.
- o To the extent that legislation proposes limiting the number of deployment sites to be studied, it should require full analysis of at least three alternative areas.
- o Finally, legislation should require that full consideration be given to split-basing and a report made to Congress on that subject.

In discussing potential socioeconomic impacts, the Governor indicated that there is need for:

- o Congress to appropriate substantial funds for capital improvements to aid the states and their communities in the development of schools, roads, water and sewer systems, hospitals, fire stations, other public safety facilities, and the like. Legislation should specifically earmark funds within the Department of Defense budget for this purpose.
- o New legislative programs for payments in lieu of taxes to communities for maintenance and operation of programs induced by deployment of the MX system.

In his conclusion, Governor Matheson stated that the Department of Defense and the Air Force must make the strongest case possible to demonstrate that deployment is necessary for the national security, and that it is being done in a manner which is defensible strategically, scientifically, environmentally, and socioeconomically.

APPENDIX G

SUMMARY OF ISSUES
SUBMITTED BY THE STATE
OF NEVADA

Included are letters of transmittal
from the State MX Project Field Office
and a compilation of their prepared
documents on State agency scoping response

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SUMMARY OF ISSUES
SUBMITTED BY THE STATE
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from the State MX Project Field Office
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documents on State agency scoping response



STATE OF NEVADA
MX PROJECT FIELD OFFICE

308 North Curry Street, Suite B 101
Carson City, Nevada 89710

(702) 885-5960

*Funded Through
Four Corners Regional
Commission*

February 27, 1980

Brig. General Forest S. McCartney
Vice Commander
United States Air Force
Ballistic Missile Office
Norton Air Force Base, CA 92409

RE: State Agency Scoping Comments

Dear General McCartney:

With this letter we are sending you two copies of the State Agency Scoping Issue Comments. In the first set of memoranda, the agencies describe four items:

- 1.) The probable impact the MX project would have on the agency. For most agencies, the impact is additional staffing requirements.
- 2.) Effects on entities regulated by the agency.
- 3.) Information the agency could supply or develop as part of the MX project impact assessment.
- 4.) Specific issues the agency believes should be addressed in the environmental impact statement.

The second set of memoranda summarize the federal funding received currently by the various state agencies. The third document is two complete sets of Preliminary Issues lists which are a compilation of the scoping issues listed by the agencies. These issues lists were distributed at the state agency briefings on February 21 and 22, 1980.

Later this week we will mail a Scoping Issues list which will include the issues identified in the scoping briefings, by the MX management committee, or by our office.

Sincerely,

Pamela Gene Cosby
Pamela Gene Cosby
Technical Evaluation Manager



ROBERT LIST
Governor

CONSTANCE L. ASHCRAFT
MX Project Director

STATE OF NEVADA
MX PROJECT FIELD OFFICE

308 North Curry Street, Suite B-101
Carson City, Nevada 89710

(702) 885-5960

*Funded Through
Four Corners Regional
Commission*

Attachments: Two copies of State Agency Scoping Issues

c.c.: Bill Phillips
Roland Westergard, Director of Conservation and Nat. Res.
Robert Hill, State Planning Coordinator
James Wadhams, Director of Department of Commerce
Ken Olsen, Utah MX Coordination Office
Constance Ashcraft, MX Project Director
General Guy Hecker
Mike Fogliani
Jack D. Smith
David K. Hamilton
Joe Sontas
Bruce Spaulding

PGC/ji



ROBERT LIST
Governor

CONSTANCE L. ASHCRAFT
MX Project Director

STATE OF NEVADA
MX PROJECT FIELD OFFICE

308 North Curry Street, Suite B-101
Carson City, Nevada 89710

(702) 885-5260

*Funded Through
Four Corners Regional
Commission*

February 29, 1980

Brig. General Forest S. McCartney
Vice Commander
United States Air Force
Ballistic Missile Office
Norton Air Force Base, CA 92409

RE: Information requests

Dear General McCartney:

We want to thank Colonel Riddle and Lt. Colonel Molnar of the Air Force; David Vomacka of Henningson, Durham and Richardson; and Bruce Golden and Ken Wilson of Fugro, National, Inc. for participating in the informative state agency question and answer sessions on February 21 and 22, 1980. We regret that the snow kept the Air Force from reaching Carson City for the first day's sessions.

During those briefings representatives of the Air Force and the Air Force contractors agreed to provide a two-state MX offices with certain items of additional information. Colonel Riddle indicated that some of the information could be made available immediately. Other items would be covered in the draft environmental impact statement.

The enclosed Scoping Issues list summarizes those additional items of information and issues which we recommend be covered in the Land Withdrawal/Site Selection EIS. It is intended as a supplement to the Preliminary Issues List mailed earlier this week. That first list summarized the state agency comments.

We hope that these comments will assist the Air Force's efforts to thoroughly analyze the environmental and socio-economic impacts of the MX Project. If we discover additional issues to be addressed in the EIS we will forward them to you.

Sincerely,

Constance L. Ashcraft
Constance L. Ashcraft
MX Project Director



ROBERT LEE
Governor

CONSTANCE L. ASHLEY
VIA Project Director

STATE OF NEVADA
MX PROJECT FIELD OFFICE

308 North Curry Street, Suite B-101

Carson City, Nevada 89710

(702) 865-5060

*Funded Through
Four Corners Regional
Commission*

Attachment: Scoping Issues List

c.c.: Pamela Cosby
Bill Phillips
Roland Westergard, Director of Conservation and Nat. Res.
Robert Hill, State Planning Coordinator
James Wadhams, Director of Department of Commerce
Ken Olsen, Utah MX Coordination Office
General Guy Hecker
Mike Fogliani
David K. Hamilton
Neil Jenson
Joe Sontas
Joseph Denny

PGC/ji

STATE OF NEVADA RESPONSE - MK SCOPING REPORT

CIVIL DEFENSE & DISASTER AGENCY
COMMISSION FOR VETERANS' AFFAIRS

COMPUTER FACILITY

CONTROLLER'S OFFICE

DEPARTMENT OF ADMINISTRATION
State Personnel Division

DEPARTMENT OF AGRICULTURE

DEPARTMENT OF COMMERCE
Insurance Division
Manufactured Housing Div.
Savings & Loan Division
State Fire Marshall Div.

DEPT. OF CONS. & NAT. RES.
Division of Colo. River Res.
Division of Cons. Districts
Divisions of Environ. Prot.
Division of Forestry
Division of Hist. Preserv.
& Archaeology
Division of Mineral Res.
Division of State Lands
Division of State Parks
Division of Water Planning
Division of Water Resources
Natural Resources
State Environmental Com.

DEPT. OF ECONOMIC DEVELOPMENT

DEPARTMENT OF EDUCATION
Office of the Superintendant
of Public Instruction

DEPARTMENT OF ENERGY

DEPARTMENT OF FISH & GAME

DEPARTMENT OF GENERAL SERVICES

DEPARTMENT OF HIGHWAYS

DEPARTMENT OF HUMAN RESOURCES
Division of Aging Services
Division of Health
Bureau, Children's Serv.
Bureau, Community Serv.
Bureau, Consumer Protect.
Bureau, Dental Health

Health Planning & Resources
Rehabilitation Division
Welfare Division
Youth Services Division

DEPT. OF LAW ENFORCE. ASSISTANCE

DEPARTMENT OF MOTOR VEHICLES
Administrative Services
Chief, Nevada Highway Patrol
Drivers' License Division
Motor Carrier Division
Registration Division
Traffic Safety Division

DEPARTMENT OF MUSEUMS & HISTORY

DEPARTMENT OF TAXATION

DEPARTMENT OF TRANSPORTATION

EMPLOYMENT SECURITY DIVISION

GOVERNOR'S OFFICE
Employment & Training Office

JUVENILE PROBATION DEPARTMENT

LABOR COMMISSIONER

LEGISLATIVE COUNCIL BUREAU

NEVADA GAMING COMMISSION
State Gaming Control Board

NEVADA HOUSING DIVISION

NEVADA INDUSTRIAL COMMISSION

NEVADA MILITARY DEPARTMENT

NEVADA STATE LIBRARY
Development Division
State Librarian

OFFICE OF THE ATTORNEY GENERAL

PUBLIC SERVICE COMMISSION

PUBLIC WORKS BOARD

STATE INDUSTRIAL ATTORNEY

SECRETARY OF STATE

STATE TREASURER

SCOPING ISSUES LIST

I. GENERAL

- A. Exact location and size (acreage and personnel) of: operation bases; missile clusters; and roads
- B. Since project construction is to be staged, by what schedule will specific valleys be developed?
- C. If the main EIS is held to the CEQ maximum of 300 pages, detailed technical and numerical information should be published simultaneously in Appendices. Technical analysts will need these Appendices to evaluate the DEIS properly within the comment period.
- D. The EIS must be indexed by issue so that someone interested in impact issues can quickly identify all sections of the EIS pertinent to this subject.
- E. Each section of the EIS should be clear without reading the entire EIS. Jargon acronyms and terms like "nominal project" or, "a given mode in a given deployment area" should be avoided unless each term is defined in the glossary. (See Milestone II EIS, page IV-103.)
- F. Environmental impacts must be specific and quantified. For example, refer to: Cement (3.2.16) on page IV-103 of the Milestone II DEIS. What is the total amount of concrete required? Produced? What quantities of cement would other known projects require at the same time? How would cement be shipped? If a shortage is anticipated, what would be required for industry to correct the shortage and produce additional cement for MX?
- G. Site-specific impact analysis must be completed before any construction activity begins. This includes the construction of heavy-duty main-access roads and railroads and other activities planned as part of the mobilization phase.
- H. Describe all modeling work, e.g., air and water quality, in detail. This includes listing data sources, collection procedures and time frame, model parameters, assumptions, sensitivity of the results to foreseeable changes in the assumptions, and quantitative and qualitative results.
- I. How are "significant" federal and state forests, parks, monuments, recreation areas, wildlife refuges, grasslands, ranges, preserves and management areas defined? "Significant" can mean different things to each reader.
- J. What recourse do the citizens of Nevada have if the Air Force does not fulfill promises concerning MX project construction or

operations made in the EIS?

- K. How will the Air Force communicate with the local communities? When will the Air Force establish a local field office in Nevada?
- L. Detailed layout and topographical maps for the Dry Lake area are being developed by the Air Force as an example; other valleys will be covered in similar detail during the Construction EIS.
- M. The Air Force should coordinate LANDSAT "truthing" activities with the State's Division of Forestry, which is currently undertaking a LANDSAT mapping project. Local forestry expertise is needed to accurately evaluate the LANDSAT data.
- N. The Air Force has agreed to arrange access to the Nevada Test Site facilities at Jackass Flats for local or state officials who would like to see what a typical loop road would look like.

II. POPULATION

- A. What are the anticipated occupational, family makeup, age, and income characteristics of the new population generated by MX?
- B. EPA has projected that the Nevada MX population impact will be 146,000 in 1990. Furthermore, the population impact can vary significantly if construction is phased over a longer period of time or if the main operating base is located near Ely in comparison to Lincoln County. Does the Air Force plan to consider various possible scenarios of population growth?
- C. Area specific population statistics should be utilized for modeling future demographic character of the population, with and without the project.
- D. The Air Force should develop a baseline profile of each community proximal to a potential main operating base or satellite base site. After compiling these profiles, the Air Force should assess the impact of the proposed base on each community to see how each community would benefit or be stressed. This baseline profile should include a statistical summary of existing infrastructural facilities, e.g., police and fire protection, public utilities, etc., and an evaluation of their adequacy. Topics should also include population growth, local government revenue sources and expenditure classes, and the local economic base, as well as zoning and existing land uses.
- E. What will be the impact on rural lifestyles? How will local residents' attitudes be determined?
- F. Public attitudinal surveys are an important part of the land withdrawal site selection EIS. It should consider at a

minimum, the attitudes of the potentially affected county residents towards:

1. The effect of MX construction on current lifestyles? Do residents perceive these effects as favorable or unfavorable?
2. What do local residents perceive as likely positive and/or negative impacts of an MX base located near their community?
3. What operating base facilities should be provided for base personnel? Which of these facilities should have public access?
4. Should military personnel housing be located on or offbase?

III. EMPLOYMENT

- A. How many people will be directly employed:
 1. During construction?
 2. During operations?
 3. By skill requirements?
 4. Percent of civilian employees?
- B. What is the "ripple effect" of the project?
 1. Secondary jobs created in the private sector (e.g., commercial businesses and services)?
 2. Effect on recruitment, job placement, and retention of employees, especially in the counties containing bases, due to the higher wages paid by the MX project?
- C. Construction budget
- D. Proposed wage rates, and average rates of turnover of direct and indirect employees?
- E. Number of out-of-state contractors and workers, including persons induced to the area who do not obtain employment.
- F. What are the expected unemployment rates once the construction period is over? What unemployment funds will Nevada be required to provide?

IV. WORKER'S COMPENSATION

- A. Will the state or the federal government provide worker's compensation for the construction workers? Operations employees?
- B. Will the construction contractors and operations personnel be subject to the Nevada Occupational Safety and Health Act, NRS 618?

V. ALTERNATIVES

- A. The alternatives should include an non-Nevada scenario
- B. Splitting the system into more states other than Nevada and Utah should be addressed. Nevada is already carrying a relatively large national defense burden. It contains 15.75 percent of all lands currently utilized by the federal government for defense. This is 4.43 percent of Nevada's total land area. The Nevada Test Site accounts for an additional 1.17 percent of the land area, thus making Nevada the state with the highest percent of state land (5.6) used for military and federal atomic energy facilities.
- C. A no-MX analysis should be included
- D. At least one basing mode different from the currently proposed "race-track" system should be considered. This should include the submarine-based deployment alternative.
- E. If the MX is located at sites other than the preferred basing site, the exact alternative locations must be known in order to assess the potential project impacts. This includes alternative main operating bases and satellite base locations.
- F. How does the cost of constructing MX in Nevada/Utah compare with the cost of constructing MX in other states; splitting MX between at least 4 states; and other deployment modes besides the racetrack, e.g., vertical shelters?
- G. Must the MX deployment area be more than 200 miles from an international border in order to prevent jamming of the communication system? This constraint has eliminated from consideration many areas once considered viable alternatives.
- H. Is the 50-foot depth to groundwater site criterion applicable only to the vertical shelter basing mode? What is the groundwater depth requirement for the horizontal shelters? What additional U.S. areas become geographically suitable if the depth to groundwater requirement is reduced for horizontal shelters?
- I. If Nevada/Utah is chosen as the deployment area after the Site-Selection EIS is evaluated, how much flexibility will exist for site-specific resiting of individual clusters and facilities during the construction EIS phase?

VI. CONSTRUCTION

- A. The timing of construction as well as location and area ofground to be disturbed.
- B. Number, size, and location of material processing plants, e.g., gravel pits, gravel screens and crushers, cement plants, and

asphalt plants. How will these sites be reclaimed? Will operations abide by environmental laws?

- C. What quantities will be required during construction of the following building materials? How and when will they be obtained and processed?
 - 1. Concrete
 - 2. Reinforcing steel
 - 3. Lumber
 - 4. Aggregate
 - 5. Water
- D. What will be the impact of resource diversion on other present and future Nevada industries?
- E. Will the contractors be required to provide their own equipment?
- F. The MX project may preempt other construction projects during the three to four year construction period. Will impact mitigation construction receive an equal priority for construction materials and funds?
- G. What will be the impact of increased access to land during construction?
- H. How will lands disturbed during construction be reclaimed? The Nevada Division of State Parks has found that arid areas require a watering system to reestablish native vegetation from construction and other (off highway) uses.

VII. WATER

- A. Amount of water required by area for:
 - 1. Construction
 - 2. Project operation
 - 3. New residents, including military personnel
 - 4. Fire protection
 - 5. Electrical power generation
- B. Chemical analysis of planned drinking water supplies
- C. Which water supplies will be appropriated for the project? The cost of acquiring other users' water rights should be included as a cost of the project.
- D. Groundwater mining, i.e., withdrawing groundwater at a rate faster than recharge of underground water source.
- E. Use of non-potable water for construction requirements could be considered, rather than excluding all potential supplies not meeting U.S. Public Health Service standards.

- F. If existing water supplies are appropriated, what water replacement will be provided?
- G. Will the United States Air Force and any other federal agencies involved comply with Nevada State water law in the project construction and maintenance?
- H. Additional hydrographic areas may have to be designated as critical groundwater areas in order to allow the proper allocation and management of the groundwater resource.
- I. Existing water resources data for the project area are extremely limited. Extensive geotechnical surveys are required. To ensure that federal, state, and local officials derive the fullest benefit from these surveys, the geophysical data must be developed accurately, be in a suitable form, and be available to the public. This includes dissemination of "typical" water consumption factors and models utilized in Air Force water studies.
- J. The project area groundwater system should be modeled to:
 - 1. Predict the effect intensive and/or sustained periods of groundwater pumping will have
 - 2. Develop techniques such as phasing construction to mitigate the project impacts
 - 3. Discuss impacts of surface water utilization by the Air Force and the positive and negative effects of any mitigation options
- K. A permanent, long-term monitoring program is needed to assess future project water resources impacts.
- L. What impact will the anticipated groundwater usage have on the small surface streams and springs?
- M. What impact will land use pattern changes have on groundwater recharge and surface water utilization?
- N. To what extent will the state's future economy be limited by commitment of the area's water resources to the MX project? Expansion of traditional uses such as livestock grazing, mineral exploration, and recreation would be severely curtailed without an available water supply even if the land were to remain open to the public.
- O. Water requirements for revegetation were not included in the original water estimates although a watering system would be required for two or three years to re-establish natural vegetation. The Air Force indicated that revegetation water requirements would be added to the water estimates.
- P. Water rights conflicts must be resolved with the affected

Indian tribes. What process will the Air Force utilize to resolve the conflicts? When?

- Q. Will the state be allowed to inspect all wells drilled for the MX missile project?
- R. To the maximum extent possible, project siting should not alter existing drainage patterns for surface water runoff, given that this will minimize impacts on groundwater recharge and surface waters. The EIS should state all instances where existing drainage patterns would be altered.
- S. After the MX project is decommissioned, the Air Force would return wells on public land. The EIS should include this statement.
- T. A municipal water resources study of the communities considered potential base sites has almost been finalized by the Desert Research Institute. DRI may not have considered municipal storage and distribution systems, but it should be considered in the EIS since many local communities have poor storage and distribution systems even though sufficient potable water is available.

VIII. AIR QUALITY

- A. The Air Force does not believe there will be any air quality violations during the operations phase predicted by their air quality model. All existing and proposed projects identified to date have been included in their model; they should be notified of any additional projects.
- B. The Air Force will begin collecting air quality data in the near future, providing four months of air quality data. This is the minimum amount of data acceptable to EPA. The state questions whether this amount of data will be sufficient to fully assess the MX project's impacts on air quality.
- C. What dust suppression techniques will be implemented?

IX. LAND WITHDRAWAL

- A. Exact amount of land for each missile site, roads, bases, and other Air Force activities must be specified.
- B. Exact location of project clusters, bases, and land required for withdrawal must be given.
- C. Which Nevada valleys will be involved?
- D. How much and which private land will be acquired?
- E. For what period will land be withdrawn? Statutory time limitations should be placed on withdrawn land. Legislation

should also guarantee continued public use of land not withdrawn.

- F. How will the land be reclaimed after the MX is abandoned?
- G. To what extent will the project require curtailing multiple use of the land? This includes detailing where and to what extent "quantity-distance regulations" will be imposed to limit proximity of civilian activities to MX facilities.
- H. Will the governor of Nevada or the state government have a right of approval in connection with the withdrawal of lands for this defense project?
- I. Will Nevada's consent be obtained in connection with the acquisition of any state and privately owned lands affected by the MX missile project?
- J. Will the federal government seek to exercise exclusive governmental jurisdiction over any land within the boundaries of MX?
- K. To what extent and for how long will civilian access be limited during construction?
- L. The Air Force will have to increase security throughout the entire area. What will be the impact on civilian activities?
- M. The Air Force does not anticipate using any "killer agents" to deter unauthorized entry to the missile sites. Pentax uses a foam to protect the missiles stored at its facilities, but the Air Force does not see a need for this measure either. There is no working space around the missile inside the shelter for someone attempting to break into the missile's protective shell according to the Air Force. The EIS should describe the unauthorized access deterrents planned for the missile shelters.

X. AGRICULTURE

- A. What restrictions will be placed on the use of land for grazing and crop production? How much grazing and agricultural land will be affected including land dedicated to the base's shelters and roads? This includes affected lands which, on the basis of soil type, could be utilized for agricultural uses, even though currently they are not.
- B. Will the grazing land be replaced? If so, where and how?
- C. Who will pay to transport the livestock to the alternate grazing land provided?
- D. How many cattle will be killed or injured by vehicles travelling to or from the MX sites. Will the livestock owners

be reimbursed.

- E. What controls will exist to control the spread of noxious weeds, insects, and animal diseases?
- F. Rodents or predatory animals may reproduce in the MX restricted areas and cause damage nearby. What control measures will be allowed on the MX restricted areas?
- G. Will wild horses and burros be allowed to propagate in the MX area? If so, will these animals be allowed to range into private land or public grazing allotments to compete with domestic livestock for forage and water?
- H. What will the rancher and farmer stand to lose?

XI. MINING

- A. Will the Air Force continue to allow mineral exploration in the MX areas?
- B. Will any mines be closed? If so, what would be the impact upon state mining revenues?
- C. Will mineral exploration be restricted? In particular, will aerial photography or detonation of explosives be limited?

XII. HISTORICAL PRESERVATION

- A. Which historical sites will be impacted by the MX system? A thorough field and literature search is required prior to commencing MX construction, and should be funded by the federal government. In addition, the planned "Cultural Resource Inventory Study" by the BLM may be insufficient to identify the area's historical and natural landmarks since previous inventory work is sparse. What actions will the Air Force take to avoid adverse impacts on cultural resources identified during later work phases?
- B. A local office with federal agency representatives would facilitate coordination with state activities to ensure compliance with historic preservation legislation.
- C. A Memorandum of Agreement between the Nevada Division of Historic Preservation and Archaeology and the Air Force is needed as specified under 36CFR, Part 800.
- D. The Nevada State Museum, which also bears some responsibility for the preservation of prehistoric and historic sites under the provisions of NRS 381.195 to 381.227, will work closely with the Nevada Division of Historic Preservation and Archaeology.
- E. Will the Air Force be held accountable for any damage to an

historical site, district, or structure?

XIII. RECREATION

- A. What will be the increased demand for public parks and other recreational facilities? This includes estimating the level of visitor-use days and hunter-use days.
- B. How will existing recreational visitors be affected?
- C. The State Park system will require additional sites, facilities, and service personnel to ensure that existing recreation areas are not overdeveloped or overused.
- D. Several existing proposed state parks are located within the MX project area. These park areas should be avoided.
- E. The highest existing recreational demand is for water-based activities (e.g., fishing, swimming, and non-motor boating) and other active recreation-based facilities. Water used for existing and planned recreational uses should not be diverted to the MX project as the current facilities are inadequate for the existing population.
- F. The EIS should consider issues and plans described in the Statewide Comprehensive Outdoor Recreation Plan (SCORP) prepared by the Division of State Parks.
- G. New communities and residential areas should include neighborhood playgrounds, community and regional facilities (i.e., ballfields, golf courses, etc.), bikepaths, and other trails. Resource requirements include capital construction, operation, and maintenance funds and four acre-feet of water per acre of turf.
- H. The EIS should include direct and indirect impacts on the proposed Great Basin National Park.
- I. Several existing, proposed, or possible eligible geological and ecological areas with distinctive qualities have been identified under the National Landmark program. Some are fairly invulnerable or compatible with the MX proposal; others are not. The EIS should identify these areas and establish criteria to preserve their natural characteristics.
- J. The EIS should discuss methods to preserve designated state cultural sites. In addition, the EIS should address the secondary impacts of vandalism and increased access.
- K. The EIS should evaluate impacts on dispersed or open space recreation with an emphasis on current off-highway vehicles and MX-induced off-highway vehicle activity.
- L. The EIS should consider visual and aesthetic impacts, as well

as effects of air pollution, and effects of other secondary impacts on wilderness and deployment areas. How will impacts be identified and quantified? How will they be ranked?

- M. Because of increased access to many valleys and a larger population level, measures to prevent recreational abuse, e.g., vandalism or poaching, will have to be increased. Who would carry out these measures? Who would pay the cost?

XIV. WILDLIFE

- A. To what extent will the local resources be utilized or disturbed?
 - 1. Water
 - 2. Vegetation
 - 3. Wildlife
 - 4. Land use
- B. Which wildlife habitat areas and endangered species will be affected? To what extent?
- C. What steps will be taken to mitigate possible negative impacts on wildlife and wildlife habitats? This includes a detailed analysis of any alternative habitat creation or the transfer of endangered species. Who will bear the cost of preventative measures?

XV. FISH AND GAME

- A. To what extent will the local resources be utilized or disturbed?
 - 1. Water
 - 2. Vegetation
 - 3. Wildlife
 - 4. Land use
- B. How will human activities be restricted relative to hunting, fishing, and recreation?
- C. What steps such as fish stocking will be taken to minimize negative recreational impacts due to the increased number of residents?
- D. To what extent will the recreational activities of hunting and fishing increase? What impact will this increased activity have on current recreational activities?
- E. Some protected fish species are found in the surface waters of the project area. Because groundwater pumping could affect these surface waters, these species are being given special consideration by the Air Force. State protected species should be given the same importance, ranking as federally protected

species, even though state inclusion criteria are less stringent.

- F. The Air Force environmental contractor has begun collecting fish species data in order to include the spawning period. A year of data is required by EPA, but will not be available in time for the final EIS. Data collection efforts for other wildlife species will begin in March.

XVI. ENVIRONMENTAL IMPACTS

- A. Mitigating measures to be used during construction and long-term operations?
- B. Conformance with state environmental regulations.

XVII. WASTEWATER TREATMENT

- A. The local sewage collection systems and treatment plants will have to be expanded. This requires detailed analysis of the number of new residents in each location and sewage facilities to be provided by the Air Force. Federal funding for such facilities must also be discussed.

XVIII. SOLID WASTE MANAGEMENT

- A. Five year management plans, currently being developed, will require: population and economic growth estimates and types of wastes expected to be generated.
- B. Direct and induced change is likely to affect:
 - 1. Disposal sites, including the number and location of sites as well as operations and maintenance requirements. This includes sites to accommodate hazardous wastes.
 - 2. Capital expenditures necessary for purchase and operation of collection equipment.
 - 3. State and local ordinances to deal with new or special wastes, including hazardous materials.

XIX. EROSION

- A. What effect will the project have on the wind and water erosion of the land? Mitigation measures should be discussed.

XX. IMPACT ON NEARBY COMMUNITIES

- A. Discussion is needed for projected public works, public services, and public improvement projects to be constructed by the Air Force, as well as those required for Air Force personnel but funded by the state or local community.
- B. Actual location and size of operation bases, as well as their physical relationship to nearby communities must be specified.

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MX SYSTEMS ENVIRONMENTAL PROGRAMS SCOPING SUMMARY.(U)
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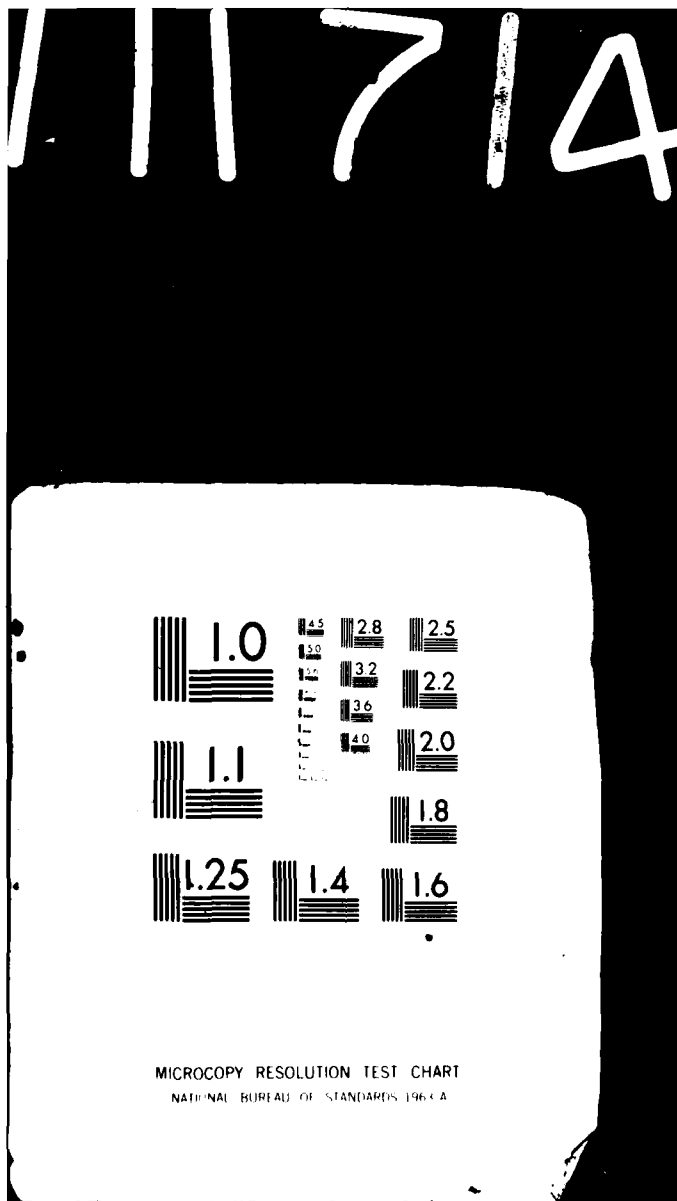
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- C. What will be the impact when the population suddenly decreases once the construction period ends?
- D. The Air Force will estimate settlement patterns of the new population, which is necessary to determine which communities will be impacted for any given base location.
- E. The Office of Economic Adjustment (OEA) has been involved in the scoping process. What has been their actual involvement to date? Their assistance is required for both planning support AND impact assessment in advance of the President's decision to authorize construction.
- F. What amount of state and local tax revenue and user charge increases will be derived from new MX project residents during the construction and operations period? How fast will the amount of tax revenues increase during the early years of operation? Will increased local taxes be necessary?
- G. Will the military construct quasi-commercial enterprises onbase, thereby denying local governments broader tax bases?

XXI. EDUCATION

- A. In order to estimate education facility, program, and transportation requirements, accurate school age population impact data are needed by:
 - 1. Grade level
 - 2. School district
 - 3. Attendance areas within the school districts
 - 4. Year
- B. What amount of federal funds will be available for schools?
 - 1. Vocational/technical training facilities
 - 2. CETA, community colleges, and job training
 - 3. School operation expenditures for children of construction workers
- C. What school facilities will be built on campus?
- D. Will construction personnel be transferred to different sites during the construction period? If so, what problems will their children, as transient pupils, experience?
- E. In order to have school facilities ready to open when the new students arrive, it may be necessary to complete blueprints before President Carter makes the final decision on MX construction. Could design funding for schools and other public facilities be authorized during the planning stages?

XXII. FIRE PROTECTION

A. Forest fire protection.

1. How will the state's forest fire protection activities be affected?

B. How will community fire protection requirements for personnel, buildings, equipment, and operations change? Who will fund additional manpower, buildings, and equipment needed for workers who are residing offsite?

C. Fire code requirements.

1. Will the project conform to state fire codes?

2. Will the federal government provide all required onsite fire protection and inspection?

XXIII. POLICE PROTECTION

A. Local police departments will need to respond to increased crime levels and greater numbers of traffic violations. What additional police department expenditures will be required for manpower, equipment, buildings, operations, and maintenance?

B. Programs for drunk driver rehabilitation and errant driver education will need to be expanded.

C. What enforcement activities increases will the Nevada Highway Patrol be required to provide?

D. What special traffic service needs will exist?

1. Hazardous materials

2. Large trucks or convoys

3. Busing

4. Large numbers of DWI arrests on construction workers

5. Control of restricted areas

XXIV. HEALTH

A. Number of new children eligible for the state dental program?

B. Number of users of radioactive materials and radiographers?

C. Federal government cooperation is needed for the state health inspection program.

D. Increased health care personnel will be required. What health care personnel will the military provide?

E. Increased program funds for local and state health care operations will be needed.

F. Will contractors and subcontractors be required to carry

medical insurance for all employees and their dependents? Who will pay the medical costs for uninsured persons?

- G. Boomtown case studies demonstrate that mental health impacts are very high. This is a "real issue" which should be addressed in the EIS.

XXV. SOCIAL SERVICES

A. Welfare

1. What funds will be available for new or prospective employees arriving in the area until they receive their first paycheck?
2. How many new welfare recipients will Nevada have to support during and immediately after construction? Over the long run?

- B. Aging services. What proportion of base personnel will retire in the area?

- C. Rehabilitation. What will be the additional cost for:

1. Vocational rehabilitation
2. Services to the blind
3. Disability adjudication
4. Alcohol and drug abuse treatment centers

XXVI. FUNDING

- A. How will the required public works project be funded? What personnel and facilities such as hospitals, schools, public office buildings, jails, and fire protection equipment will have to be supported by Nevada's tax base?

- B. How much federal aid will be available for:

1. Local improvement capital construction
2. Local operation and maintenance
3. For which services?
4. What will be the funds allocation criteria?

- C. How much private land will be removed from the tax rolls? How much land will be added to the tax rolls?

- D. How much federal support in lieu of taxes will be available for support of required local infrastructure?

- E. What technical and financial assistance will be available for existing commercial enterprises from the Small Business Administration?

XXVII. CIVIL DEFENSE EMERGENCY PREPAREDNESS

- A. Location of missile system
- B. Expected population increase
- C. Will the military provide civil defense shelters for military personnel?
- D. If shelter space is provided for military personnel, will additional space be available for civilians?
- E. Will the military support local civil defense planning facilities?

XXVIII. NEVADA NATIONAL GUARD

- A. Will the Nevada National Guard training program be meshed with base activities?

XXIX. HOUSING

- A. Housing locations (i.e., where will the bases be built?)
- B. Type of housing to be built onbase and offbase.
- C. Number of housing units needed:
 - 1. By county?
 - 2. By family size?
 - 3. For short-term (construction) and long-term (permanent) housing?
 - 4. Year by year (up to the maximum level and back down to the new permanent level)?
- D. Time schedule for new employee arrival and housing construction.
- E. The lack of state minimum standards for mobile home park development and maintenance may result in widespread substandard housing.
- F. How will housing construction be financed?
- G. Will state funded low income housing construction be required? How many units? When?
- H. Will BLM land be available for residential construction? The Air Force does not believe the sale of public land for MX-induced growth sets a precedent for the release of land in other areas. The BLM has procedures for land transfers in effect at the current time.
- I. Will the Air Force provide construction-period housing? This includes direct workers, their dependents, and secondary or induced employee housing needs.

- J. Will the Air force follow a permitting procedure for construction camps and/or ask the state to review their plans?
- K. What forms, sums, and sources of financing will be necessary for housing needs:
 - 1. By year?
 - 2. For construction and permanent financing?
 - 3. By area?
 - 4. By housing type? (mobile home park development financing, mobile home purchase financing, multifamily apartment project financing, and single family home financing)?
- L. What will be the statewide impact on:
 - 1. Financing sources?
 - 2. Building material sources?
 - 3. Utility, including water supply, resources?
- M. What housing will be available for existing residents on fixed incomes as the rent increases to inflated levels?

XXX. ENERGY

- A. What are the projected project and resident energy requirements by fuel type and region? This includes demand growth created by secondary population growth.
- B. What sources will be utilized? If new facilities are required, when will they be completed?
- C. The three most likely energy sources considered for MX include purchasing commercial power, a decentralized wind system, and a central geothermal power system. Commercial electrical power would be required as emergency back-up for the alternative energy sources. Would current commercial electrical energy users experience power outages during an emergency or at other periods?
- D. Will the state gasoline and fuel oil allocation be increased?
- E. Where will the additional gasoline and fuel oil be refined? Is excess refining capacity available? How will the fuel be transporter to Nevada?
- F. What is the projected level of federal and non-federal construction?
- G. Will federal construction comply with state energy conservation standards?
- H. How will energy exploration efforts be affected?
- I. Will new electrical transmission corridors or pipeline

rights-of-way be required? What are the impacts to Nevada of constructing a north-south transmission line for MX?

J. What federal funds will be provided for state energy planning?

K. Who will prepare the project energy plan?

L. What is the potential of using Nevada's geothermal, solar, and wind resources as a fuel source for:

1. Alcohol distillation?
2. Electrical generation potential?
3. District space heating?

XXXI. TRANSPORTATION

A. Transport impacts

1. How must the shipping network be expanded? What are specific improvements required in each transportation sector including air, rail freight, trucking, federal, state, and local road networks and pipelines? The Air Force has already mentioned plans for the following transportation improvements:
 - a. Railroad spurs will be extended to the operating base and the assembly areas
 - b. The roads interconnecting clusters will be paved, but the loop road will not
2. The Air Force has stated that MX project security will not require restricting air space except over the operating base air strip. The EIS should so state.
3. By what methods will the contractors transport construction materials?
4. Will construction or operations personnel be bused to the site? How many employees would be bused?

B. Highways

1. What traffic will be generated, including truck percentages and weights during construction and operations phases?
2. What routes will be used? At what times?
3. To what extent will civilian traffic increase?
4. What additional local expenditures will be required to maintain existing local roads? Will Question 6 preclude these expenditures?

5. Will additional federal funding be available to maintain state and federal highway systems?

6. What additional capital construction and maintenance costs will local communities incur for new road construction?

C. Hazardous Materials

1. Hazardous materials transportation to and from the site:

- a. What quantities are anticipated?
- b. How often will shipments occur?
- c. What safety measures will be taken?
- d. Will the state or local government have any regulatory powers?

XXXII. STATE ECONOMY

A. Construction Period

- 1. Will MX project construction materials be subject to state and local taxes?
- 2. What will be the effect on availability of goods and services locally and throughout the state?
- 3. The effect upon the cost of goods and services locally and throughout the state?
- 4. The number of out-of-state contractors?
- 5. Projected time table
- 6. Location and size of construction camps

B. Operations

- 1. How many savings and loan branch offices will be required?

XXXIII. STATE GOVERNMENT

- A. Increased workloads during the writing of the EIS, as well as the construction and operation periods will require funding increases to support additional employees, building space, communications, travel, purchasing, printing, and other miscellaneous supporting services.

XXXIV. REQUIRED STATE LEGISLATION

A. State legislation is necessary to authorize:

- 1. Increasing the number of justices of the peace and district judges

2. Creation of additional townships by the boards of county commissioners
3. Amendments of planning and zoning laws to encourage and require orderly growth
4. Amendment of state public land laws
5. Amendment of laws relating to financial administration of local governments
6. Changes in statutes relating to revenue and taxation with emphasis upon the legislative-imposed spending cap or the limitations imposed by the people by the adoption of Proposition 6 in November 1980
7. Changes in statutes relating to financial support of the public school system, particularly disposition of any federal subventions resulting from federally impacted areas
8. Changes in county roads, the county gas tax, and allocations of county gas tax funds
9. Mining and water resources regulations

XXXV. FEDERAL LEGISLATION

- A. Property acquired or developed with funding from the Land and Water Conservation Fund Act of 1965 cannot be converted to uses other than public outdoor recreation without approval of the Secretary. If the land is converted, equivalent lands must be substituted.

XXXVI. DECOMMISSIONING

- A. What is the expected life of MX?
- B. Since the anticipated lifetime of MX is relatively short, the state believes decommissioning should be considered as part of this EIS.

APPENDIX H

SUMMARY OF ISSUES
SUBMITTED BY THE STATE OF
UTAH



SCOTT M. MATHESON
GOVERNOR

STATE OF UTAH
OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114

February 29, 1980

Brigadier General Forrest McCartney
Vice Commander
Ballistic Missile Office
United States Air Force
Norton Air Force Base, California 92409

Dear General McCartney:

This letter will constitute the official scoping comments of the State of Utah with regard to the System Deployment Environmental Impact Statement on the MX Missile now in preparation by your office. Please be advised that we do not regard the scoping process as an empty exercise. We have made a significant effort to solicit the comments of all appropriate state and local government agencies as well as the view of others who assist the Governor on the Utah MX Task Force in order that we may provide you with the broadest possible perspective and indicate to the Air Force what we believe the environmental impact statement must contain.

Many of the specific comments received by contributors to this effort are essentially duplicative and are merged and subsumed within the context of this submittal. However, some of the comments provided were in sufficient detail and supported by supplemental materials which we think may be helpful to you if made part of this letter by reference and attachment. Therefore, we are submitting copies of selected responses as formal, official attachments to this letter.

Our understanding of the National Environmental Policy Act and its regulations is that the environmental impact statement (EIS) should contain information in sufficient detail so that rational judgments about the proposed action can be made by state and local governments and the public. The EIS must necessarily examine and evaluate all reasonable alternatives to the proposed action. In addition, the EIS must qualitatively identify and quantify to the extent possible all significant impacts to the human environment resulting from the proposed action and all its reasonable alternatives, as well as assess the mitigation potential of these impacts.

Letter to General McCartney
Page 2
February 29, 1980

Therefore, we will require that the Air Force enumerate, in sufficient detail, all direct, connected and cumulative effects regarding the preferred plan with respect to time, location, manpower, materials and equipment, and capital. All reasonable alternatives to the preferred plan must also be enumerated in similar detail so that reasoned comparisons and judgements can be made.

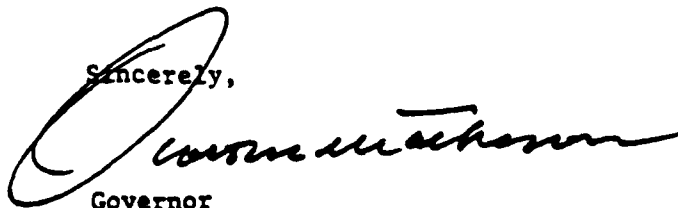
The reasonable alternatives in the Air Force's EIS must include: 1) a no action plan, 2) other reasonable and distinct plans, and 3) separate and distinct mitigation plans. Examination of only systematic variations of the preferred plan will not be considered sufficient (e.g., changing the number of location of bases, changing the minimum shelter spacing, changing the shelter design from horizontal to vertical, etc.) It will be necessary for the EIS to consider the following alternative plans: 1) at least one plan with split land-based deployment locations, 2) three separate plans, each with different total system land-based deployment locations, 3) at least two unique plans, each with significantly different land-based deployment schemes, 4) at least one plan for an air-launched strategic missile system, and 5) at least one plan for a sea-launched strategic missile system.

The EIS must address all significant impacts to the human environment stemming from the preferred plan and its reasonable alternatives. The significant impacts to the human environment may be direct (due to construction, operation or maintenance of the system), indirect (due to population growth associated with the system), or cumulative (due to the direct and indirect impacts plus the existing and most probable future baseline conditions, e.g. IPP Power system, Martin-Marietta Cement Plant, etc.) All impacts must be specified qualitatively and to the extent possible evaluated quantitatively in terms of numbers, costs, etc; and where possible, attached to an array of possible mitigation options with associated costs. The EIS impact assessment must at the minimum identify the nature of each effect, as well as its magnitude, timing, duration, location, uniqueness, uncertainty or riskiness, nonconformance with existing laws or regulations, mitigation options, and potential for public controversy.

All the foregoing represents what appears to be required for a legally sufficient EIS. The attached outline specifies the minimum significant impacts which the State of Utah has identified that must be addressed in the MX Missile System EIS, according to your scoping format, noting that each heading is not entirely unique, and that some overlap of categories exists.

We will appreciate receiving your serious attention to this most important public policy issue. In a matter of this magnitude, the EIS must inspire confidence that a thorough and professional job of analysis has been performed since there are many potential initiators of legal challenges to this EIS, including the State of Utah. We expect that you will treat all of our concerns seriously.

Sincerely,



Governor

Attachments

UTAH STATE AGENCIES - MX SCOPING PROJECT

DEPARTMENT OF AGRICULTURE

DEPARTMENT OF DEVELOPMENT SERVICES

Division of State History

DEPARTMENT OF NATURAL RESOURCES

Division of Natural Resources
Division of Oil, Gas & Mining
Division of Parks & Recreation
Division of State Lands
Division of Water Resources
Division of Water Rights
Division of Wildlife Resources
Outdoor Recreation Division
Seismic Safety Advisory Council

DEPARTMENT OF PUBLIC SAFETY

Criminal Justice Educators
Law Enforcement Services Division
Peace Officers Standards & Training
Office of Comprehensive Emergency Management
Utah Council on Criminal Justice Administration
Utah Highway Patrol
Utah Highway Safety Division

DEPARTMENT OF SOCIAL SERVICES

Division of Health

DEPARTMENT OF TRANSPORTATION

ENERGY CONSERVATION & DEVELOPMENT COUNCIL

Utah Energy Office

STATE PLANNING COORDINATOR

UTAH ADVISORY COUNCIL ON SCIENCE & TECHNOLOGY

UTAH GEOLOGICAL & MINERAL SURVEY

UTAH STATE LAND BOARD

UTAH STATE OFFICE OF EDUCATION

STATE OF UTAH
SCOPING COMMENTS
MX SYSTEM DEPLOYMENT EIS

(Note that all headings apply to the proposed action and all alternatives)

I. AIR QUALITY

A. Baseline data variables to be included in the existing and most probable future scenarios without the MX system

1. Dust particulates
2. Gaseous air quality (nitrous oxides, sulfur dioxides, ozone, hydrocarbons)
3. Airborne toxic elements (beryllium, arsenic, boron, cadmium, chromium, copper, selenium, lead, radioactive particles, etc.)
4. Visibility
5. Air quality classification
6. Aesthetics

P. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in dust particulates
2. Decrease in gaseous air quality
3. Increase in airborne toxic elements
4. Decrease in visibility
5. Decrease in air quality classification
6. Decrease in aesthetics and beauty

II. ARCHAEOLOGICAL AND HISTORICAL SITES

A. Baseline data areas to be included as a supplement to existing information and used in the existing and most probable future scenarios without the MX system. This is to include compilation of records, physical resources, and sensitivity identification.

1. Paleontology
2. Archaeology
3. Historical
4. Architectural

5. Aesthetics

B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in exposure and/or loss of sites
2. Increase in disturbance (vandalism) of sites
3. Decrease in aesthetics of sites (whether disturbed or undisturbed)

III. ENERGY AND NONRENEWABLE RESOURCES

A. Baseline data variables to be included in the existing and most probable future scenarios without the MX system

1. Energy resources, e.g., electricity, gasoline, coal, crude oil, diesel fuel, home and industrial fuel heating oil, natural gas, asphalt, etc.
2. Construction materials, e.g., concrete, aggregates, asphalt, aluminium, sand, timber, bricks, steel, water, topsoil, copper, concrete blocks, fly ash, rails, etc.
3. Heavy equipment and supplies, e.g., dozers, power shovels, tires, drilling equipment, diesel locomotives, graders, loaders, trucks, electrical systems, box cars, cranes, engines, earth movers, transmissions, ore cars, etc.
4. Capital use, inflation factors, shortages and costs of energy resources, construction materials, and heavy equipment and supplies

equipment and supplies

B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in use of and feasibility of transporting or accessing energy resources
2. Increase in use of construction materials
3. Increase in use, price, and shortages of heavy equipment and supplies
4. Increase in prices or shortages of construction inputs due to supply inelasticities

IV. LAND USE AND LAND RIGHTS

A. Baseline data variables to be included in the existing and most probable future scenarios without the MX system

1. Current and projected land uses, including: agricultural crop and grazing, mining and extraction; recreational - passive and active; wilderness - plant, both terrestrial and aquatic; transportation, communications, utilities; urban areas - residential, commercial, industrial, unimproved vacant, parks, streets, roads, both public and semi-public; water; archaeological or historic; American Indian; and water
2. Land ownership including federal, state, county, local, private, and American Indian
3. Land access including multiple use, single use, and private uses
4. Land topography and geology
5. Land vegetation including plants, forests, grazing and crops
6. Land values
7. Aesthetic areas

B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Decrease in land used for agricultural and recreational activities and any increase in local and private urbanized land. This includes net change in land values.
2. Decrease in state lands
3. Decrease in land available for multiple use
4. Decrease in vegetative cover
5. Increase in transportation-communications-utilities network
6. Delays, interference, or exclusion of mineral exploration or extraction
7. Decrease in aesthetics of area

V. NATIVE AMERICANS

A. Baseline data to be included in the existing and most probable future scenarios without the MX system

1. Indian lands presently occupied
2. Indian lands not occupied
3. Lands under litigation by Indian people
4. Indian water rights and water sources
5. Lands utilized for fishing, hunting, food provision, and recreation
6. Sacred and ritual observance locations
7. Native Americans not occupying Indian lands

B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Encroachment or disturbance of actual or claimed Indian lands
2. Loss of water rights, resources, or disturbances of existing water flow patterns
3. Loss, encroachment, destruction or vandalism of sacred burial or ritual sites
4. Loss or infringement upon hunting, fishing, recreational, and food provision areas

VI. PUBLIC HEALTH AND SAFETY

A. Baseline data variables to be included in the existing and most probable future scenarios without the MX system

1. Public health personnel by service area, e.g., medical doctors, veterinarians, dentists, orthodontists, oral surgeons, registered nurses, licensed practical nurses, midwives, pharmacists, sanitarians, paramedics, psychologists, social workers, etc.
2. Public health facilities by service area, e.g., hospitals by ownership and type; clinics by staff, ownership, and type; day care centers; ambulatory centers; waterworks and pollution control facilities; solid waste disposal areas/structures; sewage treatment facilities, etc.
3. Public safety personnel by service area, e.g., police by

jurisdictional responsibilities, civil defense coordinators, public safety inspectors, law enforcement and criminal justice administrators, firemen, etc.

4. Public safety facilities by service area, e.g., jails and other detention centers, civil defense shelters, nuclear and hazardous materials centers, courthouses, firehouses, etc.
5. Fiscal structure of public health and safety services, as well as capacity to expand services in number and area

B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in job related injuries and fatalities
2. Increase in general sanitary services, including water pollution control, solid waste management or disposal, and sewage treatment
3. Increase in civil defense preparedness needs
4. Increase in law enforcement, fire protection, and criminal justice services
5. Increase in specialized health care services, including family planning and social disease control of VD, alcohol, or drug abuse

VII. RAPID, LARGE-SCALE GROWTH

A. Baseline data variable to be included in the existing and most probable future scenarios without the MX system

1. All facilities by location, quantity, quality, ownership, access, and value. This including all residential, commercial, industrial, public, and semi-public lands and structures in and near urban areas.
2. The present residents' attitudes about themselves, their community and rapid, large-scale growth
3. Fiscal structure and existing financial conditions related to the supply of public and semi-public facilities and services, as well as expansion capacity
4. Demographic and occupational characteristic of residents
5. Experiences of similar communities problems and adaptations to rapid, large-scale growth

6. Aesthetics of the area

- B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in urban facilities and services
2. Increase in income and occupational distribution of primary jobs
3. Decrease in community cohesion.
4. Decrease in ability to pay for increased urban facilities and services
5. Increase in social services (marital counselors, juvenile counselors, social workers, etc.)
6. Decrease in aesthetics of area

VIII. TERRESTRIAL AND AQUATIC ECOSYSTEMS

- A. Baseline data variables to be included in the existing and most probable future scenarios without the MX system

1. Habitat and seasonal ranges for all Great Basin species in the following categories: endangered, big game, small game, nongame, waterfowl, aquatic, and plant
2. Hunting and fishing demands and harvests for all game species
3. Critical habitat areas by species

- B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Decrease in habitat (by species)
2. Decrease in seasonal ranges and migratory areas
3. Increase in competition for survival
4. Increase in legal hunting

5. Increase in illegl. hunting and harassment

IX. WATER RESOURCES

- A. Baseline data variable to be included in the existing and most probable future scenarios without the MX system

1. Regional and area-specific availability of surface and subsurface water resources
2. Present users and uses of water by type, amount, and season
3. Relationships between subsurface water drawdown and water filtration between shallow, medium, and deep aquifers
4. Surface drainage patterns, recharge rates, and evapo-transpiration rates by watershed
5. Flood hazard potential by watershed (impervious factors)
6. Water allocation by watershed
7. Water quality parameters (TKN, phosphorous, lead, zinc, cyanide, iron, nickel, chromium, copper, ammonia, chlorides, sulfates, suspended solids, dissolved oxygen, fecal coliforms, PCBs, arsenic, manganese, temperature, specific conductivity, pH, turbidity, etc.)
8. Aesthetics of the area

- B. Direct, indirect, and cumulative impacts to be included in the existing and most probable future scenarios with the MX system as a result of construction and operation of the project and associated population growth, with their specific mitigation options detailed/discussed as to feasibility, application, and impact.

1. Increase in water consumption (by watershed in acre-feet)
2. Increase in subsidence
3. Increase in flood hazard potential
4. Decrease in groundwater table
5. Decrease in water quality

APPENDIX I

LIST OF AGENCIES, ORGANIZATIONS,
AND INDIVIDUALS SUBMITTING
WRITTEN STATEMENTS/COMMENTS

FEDERAL AGENCIES

General Services Admin.
Washington, D.C.
o R.C. Freeman III, Admin.

General Services Admin.
Public Bldgs. Service
San Francisco, CA
o Robert K. Bogardus
Asst. Regional Admin.

NASA
Mgt. Support Off., Code LB-4
Washington, D.C.
o Russell Ritchie,
Dep. Admin. for Programs

U.S. Arms Control and
Disarmament Agency
Washington, D.C.
o James Montgomery,
Acting Asst. Dir.

U.S. Dept. of Agriculture
Soil Conservation Service
Salt Lake City, UT
o George D. McMillan,
St. Conservationist

U.S. Dept. of Agriculture
U.S. Forest Service
Ogden, UT
o Vern Hamre,
Regional Forester

U.S. Dept. of Agriculture
U.S. Forest Service
Fishlake National Forest
Richfield, UT
o Glenn Forbush

U.S. Dept. of Commerce
National Weather Service
Salt Lake City, UT
o Mary Dee Beall,
Dep. Secretarial Rep.

U.S. Dept. of Commerce
The Asst. Secy. for Sci. & Tech.
Washington, D.C.
o Jordan J. Baruch

U.S. Dept. of Defense
Dept. of the Air Force
Washington, D.C.
o Carlos Stern, Ph.D.,
Dep. for Environment & Safety

U.S. Dept. of Defense
Dept. of the Air Force
Hqtrs. U.S. Air Force
Washington, D.C.
o Guy L. Hecker, Jr.,
Special Asst.
o Robert L. Klingensmith, Colonel
Chief, Environmental Div.
Directorate of Engr. & Services

U.S. Dept. of Defense
Dept. of the Air Force
Ogden ALC/XRX
Hill AFB, UT
o Major Dreddy

U.S. Dept. of Defense
Dept. of the Air Force
Wright-Patterson AFB, OH
o Capt. Pearce, AFIT/DEM

U.S. Dept. of Defense
Off. of the Asst. Secy. of Defense
Washington, D.C.
o Perry J. Fliakas,
Dep. Asst. Secy. of Defense
(Installations and Housing)

U.S. Dept. of Health, Educ. & Welfare
Office of the Secretary
Washington, D.C.
o Charles Custard, Director
Off. of Environmental Affairs

U.S. Dept. of Housing & Urban Dev.
Washington, D.C.
o Robert C. Embry, Jr., Asst. Secy.
o Melvin Wachs, Sr. Program Off.

U.S. Dept. of the Interior
Bureau of Land Mgt.
Ely District Office
Ely, Nevada
o Stephen Rynas, MX Coordinator

U.S. Dept. of the Interior
Geological Survey
Denver Federal Center
Denver, CO
o Eugene G. Ellis, Geologist

U.S. Dept. of the Interior
National Park Service
Denver Service Center
Denver, CO
o Ronald W. Johnson

U.S. Dept. of the Interior
Office of the Secretary
Washington, D.C.
o Daniel Beard
o James W. Carlin, Asst. Secy.,
Land & Water Resources
o Guy, Asst. Secy. Land & Water
Resources

U.S. Dept. of the Interior
U.S. Fish & Wildlife Service
Off. of Endangered Species
Washington, D.C.
o MacBryde

U.S. Dept. of Justice
Washington, D.C.
o Lois J. Schiffer, Chief, General
Litigation Section, Land & Natural
Resources Division

U.S. Dept. of Justice
Federal Prison System
Washington, D.C.
o James H. Webster, Chief, Off.
of Facilities Dev. & Operations

U.S. Dept. of Labor/ETA
Washington, D.C.
o Ernest Green, Asst. Secy.,
Employment & Training

U.S. Dept. of State
Bureau of Oceans & Intl. Environ-
mental and Scientific Affairs
Washington, D.C.
o Wm. Alston Hayne, Dep. Asst. Secy.,
Env., Health & Nat. Resources

U.S. Dept. of Transportation
FAA
Washington, D.C.
o John E. Wesler, Director
Environment & Energy

U.S. Dept. of Transportation
Fed. Highway Admin.
San Francisco, CA
o Neil Lillabough, Dir., Off.
of Env. & Design

U.S. Environmental Protection Agency
Washington, D.C.
o William M. Hedeman, Jr., Dir.,
Off. of Environmental Review

U.S. Nuclear Regulatory Commission
Div. of Site Safety & Env. Analysis
Washington, D.C.
o Daniel R. Muller, Acting Dir.,
Off. of Nuclear Reactor Regulation

U.S. Office of Personnel Mgt.
Washington, D.C.
o Arch S. Ramsay, Assoc. Director,
Staffing Services

U.S. Treasury Dept.
Off. of the Secy. of the Treasury
Off. of Admin. Programs
Washington, D.C.
o Robert R. Fredlund, Dir.,
Admin. Programs

STATE AND LOCAL AGENCIES

Arizona, State of
Planning Division
Ariz. Off. of Econ. Planning & Dev.
Phoenix, AZ

Chapman Branch Library
Salt Lake City, UT
o Nancy Tessen

City of Los Angeles
Dept. of Water & Power
Los Angeles, CA
o James H. Anthony, Mgr.,
Coal-Fueled Projects

Clark County, Nevada
County Administrator's Office
o Douglas Bell, Grants Admin.

Clark County, Nevada
Dept. of Comprehensive Planning
Las Vegas, NV
o Jim Ley, Prin. Planner

Clark County, Nevada
Library District
Las Vegas, NV
o Joel McKee, Lib. Admin.

Clark County, Nevada
Off. of the County Manager
Las Vegas, NV
o Michael E. Sr. Mgt. Analyst

Clark County, Nevada
Off. of the County Manager
Las Vegas, NV
o Michael E. Sr. Mgt. Analyst

Clark County, Nevada
Off. of the County Manager
Las Vegas, NV
o Michael E. Sr. Mgt. Analyst

Nevada, State of
Commissioner for Veteran Affairs
Reno, NV
o Stein E. Moen, Commissioner

Nevada, State of
Computer Facility
o Arthur F. Crosby, Mgr.

Nevada, State of
Dept. of Administration
Carson City, NV
o Howard E. Barrett, Dir.

Nevada, State of
Dept. of Agriculture
Reno, NV
o Thomas W. Ballow, Exec. Dir.

Nevada, State of
Dept. of Commerce
Insurance Division
Carson City, NV
o Donald Neath, Comr. of Ins.

Nevada, State of
Dept. of Commerce
Manufactured Housing Division
Carson City, NV
o A. Wayne Tetrault, Admin.

Nevada, State of
Dept. of Conservation & Natural
Resources
Div. of Conservation Districts
Carson City, NV
o Dean Mierau, Admin. Officer

Nevada, State of
Dept. of Conservation & Natural
Resources
Div. of Environmental Protection
o E.G. Gregory, Admin.

Nevada, State of
Dept. of Conservation & Natural
Resources
Div. of Forestry
Elko, NV
o M.P. Jordan, Forester II
o L.V. Smith

Nevada, State of
Dept. of Conservation &
Natural Resources
Div. of Mineral Resources
o Joyce Nail

Nevada, State of
Dept. of Conservation &
Natural Resources
Div. of State Lands
Carson City, NV
o Jac R. Shaw, Admin.
o James Hansen, Dep. Admin.

Nevada, State of
Dept. of Conservation and
Natural Resources
Div. of State Parks
o John L. Meder, Admin.
o Jay Meierdierck

Nevada, State of
Dept. of Conservation &
Natural Resources
Div. of Water Planning
Carson City, NV
o James P. Hawke, Admin.

Nevada, State of
Dept. of Conservation &
Natural Resources
Div. of Water Resources
Carson City, NV
o William Newman, St. Engineer

Nevada, State of
Dept. of Conservation &
Natural Resources
Div. of Historic Preservation
& Archaeology
Carson City, NV
o Mimi Rodden, Admin.

Nevada, State of
Dept. of Conservation &
Natural Resources
Office of the Director
Carson City, NV
o Roland Westergard, Dir.

Nevada, State of
Dept. of Economic Development
Carson City, NV
o Peggi Gold, Dir.

Nevada, State of
Dept. of Education
Off. of the Superintendent of
Public Instruction
Carson City, NV
o Ted Sanders, Superintendent
o Dillie M. Kelley, Assoc.
Superintendent for Admin.

Nevada, State of
Dept. of Energy
Carson City, NV
o Noel Clark, Dir.
o Kelly Jackson

Nevada, State of
Dept. of Fish & Game
Reno, NV
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Nevada, State of
Dept. of General Services
Carson City, NV
o Bruce Greenhalgh, Dir.

Nevada, State of
Dept. of Highways
o Joseph A. Souza, Dir.
o Bill M. Marsh, P.E., Dep. Dir.

Nevada, State of
Dept. of Human Resources
Div. for Aging Services
Carson City, NV
o John McSweeney, Admin.

Nevada, State of
Dept. of Human Resources
Bu. of Children's Health Serv.
Carson City, NV
o Richard Bentinck, MD, Chief

Nevada, State of
Dept. of Human Resources
Div. of Health
Bu. of Community Health Serv.
Carson City, NV
o William Edwards, MD, MPH, Chief

Nevada, State of
Dept. of Human Resources
Div. of Health
Bu. of Consumer Health
Protection Services
Carson City, NV
o James A. Edmundson

Nevada, State of
Dept. of Human Resources
Div. of Health
Bu. of Dental Health
Carson City, NV
o William Thomason, DDS, Chief

Nevada, State of
Dept. of Human Resources
Div. of Health
Off. of State Health Off.
Carson City, NV
o John Carr, MD, State Health Off.
o Paul Cohen, Admin.

Nevada, State of
Dept. of Human Resources
Rehabilitation Div.
Admin. Office
Carson City, NV
Del Frost, Admin.

Nevada, State of
Dept. of Human Resources
Welfare Division
Carson City, NV
o George E. Miller, State
Welfare Admin.

Nevada, State of
Dept. of Human Resources
Youth Services Div.
Carson City, NV
o Robert E. Edmondson, Admin.

Nevada, State of
Dept. of Law Enforcement Assistance
Carson City, NV
o Richard C. Richards, Criminal
Justice Specialist

Nevada, State of
Dept. of Motor Vehicles
Carson City, NV
o Sharon P. Alcamo
o Hale B. Bennett
o H.J. Ciardella, Chief,
Registration Div.
o Bernard Dehl, Chief, N.H.P.
o Barton Jacks, Director
o W.W. Richards, Chief,
Motor Carrier Div.
o Leonard Winkelman, Chief,
Admin. Services

Nevada, State of
Dept. of Motor Vehicles
Traffic Safety Division
Carson City, NV
o Dave Lawson

Nevada, State of
Dept. of Museums & History
Carson City, NV
o Jack E. Porter, Admin.

Nevada, State of
Dept. of Taxation
Carson City, NV
o Roy Nickson, Exec. Dir.

Nevada, State of
Dept. of Transportation
Carson City, NV
o Joseph A. Souza, Dir.
o B.W. Ross, Asst. Dir.

Nevada, State of
Division of Colorado Riv. Resources
Las Vegas, NV
o Duane R. Sudweeks, Admin.
o Jack L. Stonehocker, Dep. Admin.

Nevada, State of
Employment Security Dept.
o Larry McCracken, Exec. Dir.

Nevada, State of
Governor's Office
Executive Chambers
o Governor List

Nevada, State of
Health Planning & Resources
Carson City, NV
o Myrl Nygren, Admin.

Nevada, State of
Labor Commissioner
Carson City, NV
o Richard McNeel, Labor Comr.

Nevada, State of
Legislative Counsel Bureau
Carson City, NV
o Andrew P. Grose, Research Dir.

Nevada, State of
Military Dept.
Carson City, NV
o M.G. William F. Engel,
The Adjutant General

Nevada, State of
Nevada Housing Div.
o A. McNitt, Jr., Admin.

Nevada, State of
Nevada Industrial Commission
Carson City, NV
o John R. Reiser, Chairman

Nevada, State of
Nevada Legislative Water Committee
Las Vegas, NV
o Bedrosian
o Joe Dini
o Glaser
o Graddock
o Rhoads

Nevada, State of
Nevada State Library
Carson City, NV
o Joseph J. Anderson, St. Librarian
o Jeanne Goodrich, Library Dev. Div.

Nevada, State of
Off. of the Attorney General
Carson City, NV
o Larry Struve, Ch. Dep. Atty. Gen.

Nevada, State of
Public Service Commission of Nevada
o Dave James, Accounting
o Heber P. Hardy

Nevada, State of
Public Works Board
Carson City, NV
o William E. Hancock, Manager

Nevada, State of
Savings & Loan Division
o Lester O. Goddard, Cmr.

Nevada, State of
Seventh Judicial District Court
Juvenile Probation Dept.
Ely, Nevada
o Harold Moorehead, Chief
Probation Officer

Nevada, State of
State Comprehensive Employment &
Training Office
Carson City, NV
o Myrna Macdonald, Exec. Dir.

Nevada, State of
State Environmental Commission
Carson City, NV
o Jim Hannah, Exec. Secy.

Nevada, State of
State Fire Marshall Div.
Carson City, NV
o T.J. Huddleston, St. Fire Marshall

Nevada, State of
State Industrial Attorney
Las Vegas, NV
o Scott Baker, St. Indus. Atty.

Nevada, State of
State Personnel Div.
Carson City, NV
o James Wittenberg, St. Personnel
Admin.

Nevada, State of
State Treasurer
Carson City, NV
o Stanton Colton, St. Treasurer

Salt Lake County Public Works
Div. of Water Quality & Water
Pollution Control
Salt Lake City, UT
o Terry May, Water Quality
Specialist

Utah, State of
Advisory Council on Sci. & Tech.
o James W. Bunker, Ph.D.,
State Science Advisor

Utah, State of
Dept. of Agriculture

Utah, State of
Dept. of Health
Salt Lake City, UT
o James O. Mason, MD, Dr. P.M.
Exec. Dir.

Utah, State of
Dept. of Natural Resources
Salt Lake City, UT
o Dee Hansen, PE; St. Engr.
o Gordon Harmsen, Exec. Dir.
o David Madsen, St. Archeol.
o Chauncey Powis, Fed./State
Coordinator

Utah, State of
Dept. of Natural Resources
Div. of Oil, Gas, & Mining
Salt Lake City, UT
o Cleon B. Feight, Dir.

Utah, State of
Dept. of Natural Resources
Div. of Parks & Recreation
Salt Lake City, UT
o Kenneth E. Travous,
Comprehensive Planner

Utah, State of
Dept. of Natural Resources
Div. of State History

Utah, State of
Dept. of Natural Resources
Div. of State Lands
Salt Lake City, UT
o William K. Dinehart, Dir.

Utah, State of
Dept. of Natural Resources
Div. of Water Resources
Salt Lake City, UT

Utah, State of
Dept. of Natural Resources
Div. of Wildlife Resources
Salt Lake City, UT
o Douglas F. Day, Dir.

Utah, State of
Dept. of Natural Resources
Outdoor Recreation Agency
Salt Lake City, UT
o William H. Schwab, Planner

Utah, State of
Dept. of Natural Resources
Seismic Safety Advisory Council
Salt Lake City, UT
o Delbert B. Ward

Utah, State of
Dept. of Public Safety

Utah, State of
Dept. of Social Services
Salt Lake City, UT
o Jean Binyon

Utah, State of
Dept. of Transportation
Salt Lake City, UT
o William D. Hurley, Dir.

Utah, State of
Office of the Governor
Salt Lake City, UT
o Scott M. Matheson, Governor

Utah, State of
State Off. of Education
Salt Lake City, UT
o Vaughn Hall, Dep. Supt.

Utah, State of
State Planning Coordinator
Salt Lake City, UT

Utah, State of
Utah Energy Office
Salt Lake City, UT
o Jack Lyman, Dir.

Utah, State of
UT Geological & Mineral Survey
Salt Lake City, UT
o Donald T. McMillan

NATIONAL ORGANIZATIONS

Advisory Council on
Historic Preservation
Denver, CO
o Louis S. Wall, Chief,
Western Div. of Proj. Review
o Robert R. Garvey, Jr.
Exec. Dir.

American Friends Serv. Committee
Cleveland, OH
o Kathy Bickman

Center for Defense Information
Washington, D.C.
o Thomas Karas, Staff Analyst
o Gene R. La Rocque, Dir.

Center for Law & Social Policy
Washington, D.C.
o Leonard C. Meaker
o Bruce M. Rich

Clergy & Laity Concerned
New York, NY
o John Collins
o Barbara Lupo

The Conservation Foundation
Washington, D.C.
o Zemy G. Scott

Friends Com. on National Leg.
Washington, D.C.
o Steve Linscheid, Legis. Asst.
Indian Affairs

Friends of the Earth
Washington, D.C.
o Stephen M. Wheeler

League of Women Voters
Las Vegas, NV

Lutheran Council in the U.S.A.
Washington, D.C.
o Martin A. Sovik, Staff Asst.
Off. for Governmental Affairs

National Science Foundation
Washington, D.C.
o Adair Montgomery, Chairman,
Com. on Environmental Matters

National Wildlife Federation
Boulder, CO
o Luke J. Danielson, Counsel

NAME
Washington, D.C.
o Michael Newby, Asst. Dir.

U.S. Water Resources Council
Washington, D.C.
o Leo M. Eisel, Director

STATE AND LOCAL ORGANIZATIONS

Alamo Town Board
Alamo, NV
o Ann Morrissey

Alliance for Survival
Los Angeles, CA
o Paul O'Conner

Antelope Indian Circle Cultural Group
Susanville, CA
o James K. Woodman

Berkley Students for Peace
Berkeley, CA
o William Kahn

The Brine Shrimp Alliance
Salt Lake City, UT

The California Native Plant Soc.
National City, CA
o R. Mitchell Beauchamp

Cedar City Chamber of Commerce
Cedar City, UT
o Paul Whitman, Pres.

Citizen Alert
Reno, NV
o Susan Orr
o Jonn Wellingshoff

City Council
Ely, NV

Desert Fishes Council
Death Valley, CA
o Peter G. Sanchez, Chairman

The Desert Protective Council, Inc.
Lucerne Valley, CA
o Chuck Bell, V.P.

Duckwater Shoshone Tribe
Duckwater, NV
o Jerry Millett, Chairman

Ely Colony Council
Ely, NV
o Wesley Allison

Ely Lions Club
Ely, NV
o Leo L. Curto, Pres.

Kiwanis Club of White Pine
Ely, NV

MX Information Coalition
Salt Lake City, UT
o Stanley Holmes, Coordinator

Milford Volunteer Fire Dept.
Milford, UT
o Ray P. Whiting, Chief

Native American Church of N. Amer.
McDerrick, NV
o Stanley Smart, Traditional Leader

Nevada Cattlemen's Association
Tonopah, NV

Nev. Indian Environmental
Research Project
Reno, NV
o Debra J. Harry

Nevada Historical Society
Reno, NV
o John M. Townley, Dir.

Nevada Mining Assoc., Inc.
Reno, NV

Nevada Public Land Users Assoc.
Henderson, NV
o Colleen Freeman, Pres.

Nevada Wildlife Federation
Overton, NV
o Bob Rose, V.P.

Nevada Wool Growers Assoc.
Ely, NV

Nevadans Opposed to MX
Las Vegas, NV

Northern Nev. Native Plant Society
Reno, NV
o Margaret Williams, Exec. Secy.

Northern Nev. Section of AIME
Reno, NV
o Joyce Hall

Peace Smith House
Massapequa, NY
o Janet Nordheim

Qabel Foundation, Inc.
Santa Cruz, CA

Regional Planning Commission
Ely, NV
o P. Greenwall, Secy.

Rocky Flats Truth Force
Boulder, CO

Sagebrush Alliance
Las Vegas, NV
o Fred Landau

Salt Lake Chap. Zero Pop. Growth
Salt Lake City, UT

Sierra Club - Salt Lake Group
Salt Lake City, UT
o Dr. J. Dennis Willigan

Sierra Club - Las Vegas Group of
Toiyabe Chapter
Las Vegas, NV

Sierra Club - Utah Chapter
Logan, UT
o Marta Tollerup, MX Spokesperson

Southern Utah Residents Concerned
About the Environment (SOURCE)
Cedar City, UT

Southwest Resource Council
Hurricane, UT
o Jane Whalen

Union of Concerned Scientists
Cambridge, MA
o Paul F. Walker

United Nations Assoc. of Utah
Salt Lake City, UT
o Oren A. Nelson, Pres.

Utah Audubon Society
Salt Lake City, UT
o Daniel Geery, Solar Chairperson

White Pine Chamber of Commerce
Ely, NV
o William R. Coffman, Pres.

White Pine County Development Corp.
Ely, NV
o Mike Bourne

White Pine County Road Dept.
Ely, NV
o Ronald W. Jordan, Road Supvr.

White Pine County Sheriff's Off.
Ely, NV
o Dean Sutterup

White Pine County Welfare Dept.
Ely, NV
o Margaret E. Knows, Dir.

White Pine Farm Bureau
Ely, NV
o Jeff Gardner, Pres.

White Pine Historical Society
Ely, NV

The Wilderness Society
Reno, NV

Women in Mining
Battle Mountain, NV

INDIVIDUALS/COMMERCIAL

David E. Acker
Bedford, MA

Amax Exploration, Inc.
Subsidiary of Amax, Inc.
Tucson, AZ
o J.T. Green

Amelco Minerals, Inc.
Subsidiary of Selection Trust Ltd.,
London, England
Ruth, NV
o Lyle Taylor

American Solar Enterprises
Las Vegas, NV
o David J. Cale

Gail D. Armstrong
Panaca, NV

Lilla Arndt
Ely, NV

P.N. Arvin
Meno, NV

Stacey Atkin
Salt Lake City, UT

Atlantic Richfield Co.
Denver, CO
o C.M. Moseley, Asst. Public Lands
Coordinator, Govt. Relations
o J.R. Mitchell

Karl T. Augustine
Salt Lake City, UT

Beehive Telephone Co., Inc.
Salt Lake City, UT
o Arthur W. Brothers, Pres.

Don Behm
Madison, WI

Sylvia Bendix
Berkeley, CA

Marc Beyeler
Denver, CO

Russell and Joy Bezette
Pleasanton, MN

Tom Blodget
Chico, CA

Robert M. Broadbent
Boulder City, NV

Thomas R. Brown
Bakersfield, CA

Virginia Browning
Salt Lake City, UT

CACI, Inc.
Las Vegas, NV

Delna Campbell
Verdi, NV

Camp, Dresser & McKee, Inc.
Environmental Science Division
Wheat Ridge, CO
o David B. White

J.M. Capriola Co.
Elko, NV
o Bill Bear

C. Richard Capurro
Sparks, NV

Center for Marine Research
Carlsbad, CA
o Dennis L. Brining, Project
Scientist

David M. Chaykin
Albany, CA

Cheri Cinkoske
N. Las Vegas, NV

Susan Cochran
Sacramento, CA

Susan C. Cohen
Salt Lake City, UT

Valerie P. Cohen
Cedar City, UT

Eric D. Cole
Salt Lake City, UT

Alyce A. Coleman
Redwood City, CA

Contemporary Technologies Co.
Tucson, AZ
o James Sanchez

Converse Ward Davis, Dixon
Geotechnical Consultants
San Francisco, CA
o Eugene A. Miller, Sr., V.P.

D.E. Cook
Salt Lake City, UT

Judith Ann Core
Salt Lake City, UT

Lawrence J. Costello
West Roxbury, MA

Tony G. Cowley
Needuv, UT

Dan Crain
Panaca, NV

Dalton, Dalton, Newport
Cleveland, OH

DACP Associates
Philadelphia, PA
o Scott Killinger

Dames & Moore
o Ruth L. Van Dyke

Jeff N. Dean
Salt Lake City, UT

De Boever, Savage & Assoc., Inc.
Mgt. & Systems Engineers
Washington, D.C.
o Wayne C. Savage, V.P.

Sonia DeMart
NV

Delta Fire Sprinkler System
Salt Lake City, UT
o Stan Robinson

Desert Springs Realty
Sparks, NV
o William Penrose

Earl A. Edmunds
Carson City, NV

R. Kent Eisler
Kansas City, MO

Ely Daily Times
Ely, NV
o Joe Merica

Facilitators, Inc.
Financial & Resource Development
Specialists - Consultants
Las Vegas, NV
o Susan D. Waddilove

Fillmore Hospital and Clinic
Fillmore, UT
o Richard R. Packer

Ralph F. Findlay
Salt Lake City, UT

Dr. Edwin Brown Firmage
Salt Lake City, UT

Ed Fitzpatrick
Reno, NV

Marilyn Flanges
Las Vegas, NV

Mike Fogliani
Nevada

Barbara Foreman
Ely, NV

Christopher Foustoukos
Worcester, MA

Bill Gallagher
Pleasant Hill, CA

Elizabeth A. Gamboni
Reno, NV

Robert S. Gates
Idaho Falls, ID

Gazette-Journal Carson Bu.
Carson City, NV
o Susan M. Volek

General Electric
Technical Information Center
Santa Barbara, CA
o Sara B. Ellinwood

Dennis Ghaglieri
Reno, NV

Carol Gilbert
Saginaw, MI

Derham Giuliani
Big Pine, CA

R.N. Goldberger
Free Lance News Service
Salt Lake City, UT

Glenn B. Goodrich
IML Freight, Inc.
Salt Lake City, UT

Clarence G. Gowan
Albuquerque, NM

Cheryl Grana
Salt Lake City, UT

Cindy Greathouse
Lynndyl, UT

Brad Green
Centerville, UT

J.W. Gregg
Reno, NV

Greenway Development Co.
Reno, NV
o Kirk Greene

Laurnel H. Gubler
Carson City, NV

Darrell G. Hafen
Draper, UT

E. Wayne Hage
Tonopah, NV

Donald A. Haselhoff
Las Vegas, NV

Michael Heizer
Hiko, NV

Mark Henderson
Ely, NV

Karen Heuer
Logan, UT

Herdmaster, Inc.
Las Vegas, NV
o William L. Lamb

H.D. Hill
Dugway, UT

Jack Hinrichs
Las Vegas, NV

Walter F. Holmes
Stansbury Park, UT

L.M. Hoen
Salt Lake City, UT

Ideal Basics Industries
Cement Division
Salt Lake City, UT
o Kurt Walker, Sales Rep.

Jean Johnson
Kanab, UT

John E. Johnson
Las Vegas, NV

Ray Johnson

Bill Kaysing
Las Vegas, NV

Keradamax, Inc.
Mineral Exploration
Albuquerque, NM
o Jack Carter, Geologist

F. Key
Washington, D.C.

Peter Kiewit Sons Co., Contractors
Murray, UT
o Bob Betcher

Evelyn & Paul Kimberly
Overton, NV

Terri Kimmich
Las Vegas, NV

Bradley F. Kosch
Reno, NV

Kendall Kroesen
Riverside, CA

S. Ladnier
Sun Valley, NV

Edward A. Lange
N. Las Vegas, NV

Eileen Lappe
Cheyenne, WY

Frank Law
Delta, UT

C.F. Lewis
Lexington, KY

Jack Martin
Goldfield, NV

Sunny Martin
Ely, NV

Ben Mates
Salt Lake City, UT

Mrs. Gene McBride

Thomas McCannant

Rev. Walter A. McCleneghan
Scottsdale, AZ

Marilyn McWabb
Lincoln, NE

Richard Menzies
Salt Lake City, UT

Timothy C. Messick
Arcata, CA

Milford Medical
Milford, UT
o D.A. Symond, M.D., ABFP

Carson Miller
NV

Keith Miller
Ft. Worth, TX

Maya Miller
Carson City, NV

C.R. Mixer
Sparks, NV

H. Byron Mock
Salt Lake City, UT

N. Mohit
Phoenix, AZ

Kenneth E. Moore
Salt Lake City, UT

Ken Morris Real Estate Co., Inc.
Las Vegas, NV
o Robert Merrillat

L. Morse
Washington, D.C.

Phillip Nelson
Idapah, UT

Tom Ochs
Boulder City, NV

Robert L. Ogden
Magna City, UT

Carolyn R. Olsen
Fillmore, UT

Richard A. Orr
Caliente, NV

Osterlund Enterprises, Inc.
Los Gatos, CA
o Walter W. Pelton, Pres.

Pacific Silver Corporation
East Ely, NV
o William R. Wilson

Leonard Padilla
Quemada, NM

Marie Painter
Carson City, NV

Dan Papez
Sacramento, CA

Thomas N. Parks
Salt Lake City, UT

Jack B. Parson Construction Co.
Ogden, UT
o Nolan E. Karras, Financial V.P.

Mr. & Mrs. Paulick
Fillmore, UT

Barbara Panman
Ephraim, UT

David C. Pell
Salt Lake City, UT

M. Duke Pepper
Shermans Dale, NV

Al Pethareh
Salt Lake City, UT

Pine Grove Associates

Robert Poor
Winnemucca, NV

Marv Poulson
Salt Lake City, UT

P.M. Poulson
Salt Lake City, UT

Paul Prengaman, Assemblyman
District N. 26
Reno, NV

Joelle J. Reece
Salt Lake City, UT

Ronald D. Reece
Salt Lake City, UT

Jim Reed
Sacramento, CA

Renewable Natural Resource Center
Reno, NV

Resource Concepts, Inc.
Carson City, NV
o John L. Hancock, Architect/Planner

Ru/Noaga, Donald & Maida
Fort Lauderdale, FL
o Timothy D. Edmond, Project
Mgr.

William E. Rice
Ely, NV

C. Richard
Sparks, NV

Theodore B. Rimpau
Milford, UT

Joseph M. Robertson, Ph.D.
Reno, NV

Gerald B. Robinson, Jr.
Monroe, UT

Georgia Russell
Ophir, UT

James D. Santini
Washington, D.C.

Mark Sanzenbach
Santa Fe, NM

Lyn Schmale
Anaconda Copper
Denver, CO

Martin Schuezer
Salt Lake City, UT

Lina Sharp - Sharp Ranches
Tonopah, NV

Todd Shuman
Saugus, CA

Marjorie Sill
Reno, NV

Cecil E. Spears
Tonopah, NV

Rose Strickland
Reno, NV

Steve Sutherland
Ely, NV

Anice C. Swift
Boulder, CO

Tony Switzer

Sylvania Systems Group
Western Division
GTE Sylvania Incorporated
Mountain View, CA
o M. Falkovits, Mgr.

System Planning Corporation
Arlington, VA
o Darlene S. Havener,
Research Librarian

Brad Taylor
Salt Lake City, UT

Takton, Inc.
Salt Lake City, UT
o Ted Knowlton, Pres.

Glenn H. Terry
McGill, NV

Irma M. Thomas
St. George, UT

Joseph Thomas, Jr.
Los Angeles, CA

Jack Tinney
Livermore, CA

Tintic Development Corp.
Eureka, UT
o Ludo van Loeden, Pres.

Rebecca Tippins
Salt Lake City, UT

Robert Titus
Las Vegas, NV

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4-8